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DEPARTMENT OF TRANSPORTATION AND RELATED AGENCIES APPROPRIATIONS FOR FISCAL YEAR 1990

HEARINGS

BEFORE A

SUBCOMMITTEE OF THE

COMMITTEE ON APPROPRIATIONS

UNITED STATES SENATE

ONE HUNDRED FIRST CONGRESS

FIRST SESSION

ON

H.R. 3015

AN ACT MAKING APPROPRIATIONS FOR THE DEPARTMENT OF TRANSPORTATION AND RELATED AGENCIES FOR THE FISCAL YEAR ENDING SEPTEMBER 30, 1990, AND FOR OTHER PURPOSES

PART 2 (Pages 1-1335)

DEPARTMENT OF TRANSPORTATION
GENERAL ACCOUNTING OFFICE
NATIONAL TRANSPORTATION SAFETY BOARD
NONDEPARTMENTAL WITNESSES

Printed for the use of the Committee on Appropriations

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DEPARTMENT OF TRANSPORTATION AND RELATED AGENCIES APPROPRIATIONS FOR FISCAL YEAR 1990

THURSDAY, APRIL 6, 1989

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 10:08 a.m., in room SD–138, Dirksen Senate Office Building, Hon. Frank R. Lautenberg (chairman) presiding.

Present: Senators Lautenberg, Harkin, Mikulski, D'Amato, Domenici and Grassley.

NATIONAL TRANSPORTATION SAFETY BOARD

STATEMENT OF JAMES L. KOLSTAD, ACTING CHAIRMAN

ACCOMPANIED BY:

LLOYD MILLER, ACTING MANAGING DIRECTOR

LOU COLUCCIELLO, CHIEF, MARINE ACCIDENT DIVISION

OPENING REMARKS

Senator LAUTENBERG. I call the subcommittee to order.

Because of a change in schedule, we are going to hear first from the National Transportation Safety Board. The part of the hearing that deals with the Federal Highway Administration is going to recommence at 1 o'clock. We will try to conclude this first part in an hour and we'll try to move things along.

We welcome Senator Mikulski here with us.

This is the first appearance of the Safety Board since the *Exxon Valdez* oil spill accident. Now, I was in Valdez last week shortly after the accident happened, and whatever portrayals you see pale by comparison to the reality of the situation when you are on site. It is an environmental disaster, the worst oil spill in our history. The fragile ecosystem of that area has been perhaps permanently but certainly adversely affected. We hope that the damage can be corrected so that the quality of life in that area can be restored. It is going to take some years to fully appreciate and remedy this situation.

We have questions, of course, that arise out of this accident, questions about who should have moved more quickly, if anybody, and whether or not Exxon, the good neighbor, was a responsible neighbor. We will see.

The Coast Guard told me directly that they are assured that Exxon will pay for the costs of the cleanup, and certainly we hope they will do at least that.

I find myself asking why this happened, what could have been done to prevent it, and more importantly perhaps can we insure that it won't happen again.

After the railroad accident in Chase, MD, after the Pan Am flight 103 bombing, and now today after the Valdez oil spill, there is plenty of blame to spread around. The Safety Board in its prepared statement raises serious questions about both Exxon's operations and the Coast Guard's response to the accident.

I have a number of questions regarding the Board's statement, the adequacy of the response plan, the adequacy of the vessel traffic service system and whether all of this is driven, not by safety and environmental considerations, but by the bottom line. I can't believe, however, that a company that made in excess of $4 billion net profit after tax last year could not have had the resources marshaled to ensure against such an accident.

Well, it is said often that no news is good news, and frankly, I'm ready for no more news.

We have with us my colleague from the State of New York, the ranking member of the Transportation Subcommittee. Senator D'Amato, we have shifted the order. We are having the NTSB part of the hearing first, and we will reconvene at 1 o'clock. If you want to make a short statement, we're going to be here about 45 minutes.

STATEMENT OF HON. ALFONSE M. D'AMATO, U.S. SENATOR FROM NEW YORK

Senator D'AMATO. Mr. Chairman, I am pleased to join with you in this hearing today. I ask that my opening remarks be included in the record as if read in their entirety.

I think it is important that the Board give us their insights as it relates to the accident to which you have referred. We need to understand what is taking place, how they are carrying out their investigation, what impact do they believe the tragic spill will have, and if they are working with others. These are important questions, and I look forward to their testimony.

Thank you, Mr. Chairman.

[The statement follows:]

STATEMENT OF SENATOR D'AMATO

Mr. Chairman, today we will hear from Richard Morgan, Executive Director of the Federal Highway Administration and James Kolstad, Acting Chairman of the National Transportation Safety Board. I look forward to their insights on fiscal year 1990 budget issues affecting FHWA and the NTSB.

The President has proposed budget authority of $13.9 billion for FHWA's four main programs: Federal Aid Highways, Motor Carrier Safety Grants, Motor Carrier Safety, and Highway Related Safety Grants.

FHWA's largest program, Federal Aid Highways, would have an obligation limit of $11.3 billion—$690 million less than current levels. Moreover, programs that are exempt from the obligation limit are about $300 million less than under current law. Under this proposal we face a shortfall of nearly $1 billion for Federal Aid Highway funding.

Motor Carrier Safety Grants would be funded at the authorized level of $60 million, the same as current levels.

The Motor Carrier Safety program, which covers rules and regulations involving the motor carrier industry, including the commercial motor vehicle driver's license program, would be funded at $32.2 million (an increase of $5.2 million). The increase will provide 150 new safety inspectors and 35 support staff.

Highway Related Safety Grants (state grants) are proposed to be covered by a $10 million obligation limit, equal to new fiscal year 1990 authority.

No funds are proposed for demonstration projects, which were funded during fiscal year 1989 at $125.6 million. Since the House is likely to include "demo" projects when it marks up its fiscal year 1990 bill, we will be hard-pressed to accommodate them.

NTSB has requested $25.967 million for fiscal year 1990, an increase of $607,000 over current levels. However, Mr. Kolstad's prepared testimony indicates that due to uncontrollable cost increases for pay raises, inflation, etc., this amount will not be enough to maintain NTSB's current workforce of 324. NTSB expects to reduce its workforce by 10 through a hiring freeze and attrition.

Mr. Chairman, I am sure that today's hearing will shed much light on key issues affecting FHWA and NTSB funding for fiscal year 1990.

PREPARED STATEMENT

Senator LAUTENBERG. Thank you very much.

Senator Sasser, who is a member of this subcommittee, did want to be here, but he is involved in budget negotiation, and he will have a statement and questions for the record.

[The statement follows:]

STATEMENT OF SENATOR SASSER

Thank you, Mr. Chairman.

This morning's hearing on the budget request for the Federal Highway Administration and the National Transportation Safety Board is particularly timely.

Last Saturday, the bridge over the Hatchie River in my State of Tennessee collapsed killing eight people. Preliminary indications are that the support at the base of the pillars supporting the bridge had washed away.

The collapse of this bridge is tragic evidence of the dangerous condition of many bridges, including many in Tennessee. According to Department of Transportation figures, about 41 percent of the bridges in the United States are classified as deficient. In Tennessee, 7,389 of the 18,546 bridges that have been surveyed are rated deficient.

Last year, a report prepared by the Government Accounting Office, prepared at my request, detailed serious problems in the Highway Bridge Replacement and Rehabilitation Program. It pointed out a lack of coordination and consistency in the collection of data and in the standards that are used in assessing the condition of bridges. This makes it impossible to allocate Federal funds where they are most needed.

The end result, is that cost estimates for replacement and repair are based on questionable data and each State's share of Federal funds is affected by inaccurate and incomplete reporting.

We cannot afford to ignore this problem any longer. The bridges in this country are in serious need of repair.

Now, I realize we can't wave a magic wand and spend all the money we would wish on the Federal bridge program. However, we must ensure that the money we do spend is being spent as effectively as possible.

I will soon be introducing legislation to take the first step in correcting this sorry situation. Specifically, my bill will improve inspections and bring some consistency in the way bridge repair and rehabilitation funds are spent.

This bill will be a first step. It is not a complete solution. However, the longer we ignore this problem the more expensive the solution becomes.

STATEMENT OF HON. BARBARA A. MIKULSKI, U.S. SENATOR FROM MARYLAND

Senator LAUTENBERG. Senator Mikulski, do you have any opening statement?

Senator MIKULSKI. Just very briefly, Mr. Chairman. I know we have to move with a quick pace this morning.

But I feel the National Transportation Safety Board is one of our most important Federal agencies. It is that agency which is to provide an independent review of accidents and then to give us policy directions that we need to go in.

You mentioned the tragedies that have befallen our country in the last several weeks, and as the Senator from Maryland, I know many of my own constituents were victims of these tragedies. Chase happened in Maryland. There are young men and women who would now be juniors in college getting ready for their junior proms had not Chase, MD, happened. They are now dead. There is no way to bring that back. Ricky Gates was a drunk, but no one seemed to know he was a drunk.

We have Pan Am 103. Seven Marylanders went to their deaths, again many of them college students, a young lieutenant who was scheduled to make captain this March. Well, he'll never be a captain. He'll never be a major, but he will always be a hero.

So, Mr. Chairman, everybody says, we'll never let it happen again. I've been a Congresswoman and a Senator now for a decade plus 2 years, and we do let it keep happening again. I would hope that we would learn from the National Transportation Safety Board and really begin to draw the line.

Thank you, Mr. Chairman.

Senator LAUTENBERG. Thank you very much, Senator Mikulski.

If the NTSB witnesses will come to the table, we will hear their testimony now please. Mr. Kolstad, if you would, summarize your statement. We have your full statement and that, of course, will be submitted for the record. A summary form would be the best if you can do that.

STATEMENT OF JAMES L. KOLSTAD

Mr. KOLSTAD. Certainly, Senator.

Good morning, Senator D'Amato, Senator Mikulski.

To my left is Mr. Lloyd Miller, our Acting Managing Director.

I am pleased to be here today to discuss the Safety Board's fiscal year 1990 appropriations request. On behalf of my colleagues and my staff, I want to thank you and the other members of this committee for your continued interest and support in the Safety Board activities.

As you have already recognized, Mr. Chairman, my formal statement is lengthy. So, with your permission, I'll just submit it for the record.

GO-TEAM LAUNCHES

As you know, we have launched teams to two major accidents in the last 2 weeks: one to Valdez, AK, to investigate the cause of the worst oil spill in U.S. history; and another to Covington, TN, to investigate the collapse of a bridge over the Hatchie River.

Our investigators are still in Alaska gathering as much factual information as possible to determine how such a devastating accident could occur and how it can be prevented in the future. I am prepared to discuss this investigation in more detail following my summary.

Our investigation in Tennessee is still in the early stages as we review with State and Federal officials maintenance and inspection records pertaining to the collapsed bridge. Four cars and a semi-tractor-trailer went into the river, killing eight people.

AVIATION ISSUES

Turning briefly to other issues of interest, in aviation we saw a decrease in both accident totals and accident rates in all categories of aircraft in 1988. Nevertheless, we face some issues that continue to cause concern.

For instance, inadequate pilot training and experience in carrier operations showed up in several major accident investigations. One of the outgrowths of airline deregulation has been the significant increase in demand for qualified pilots resulting in crews with less experience than has been the case in the past.

Evidence of deficiencies in operations in airline company oversight also has led us to review the adequacy of FAA surveillance of air carrier operations, and we found instances where improvements are needed.

This past year has been notable for the number of major foreign accident investigations that have occurred. The Board's resources have been strained at times in responding to requests for assistance from foreign governments, but we believe the safety payoff in terms of information vital to U.S. operations is well worth our efforts.

RAILROAD ISSUES

In rail we continued our investigation of alcohol and drug use and released a safety study that reviewed the effects of the FRA's new rules dealing with drug use by railroad employees.

We also took a close look at the issue of crew fatigue and its relationship to the derogation of performance. In an accident investigation in the collision of two Conrail trains near Thompsontown, PA, in January, the Board found that unpredictable work and rest cycles resulted in sleep-deprived conditions in one of the crews.

HIGHWAY ISSUES

Turning to highway, the worst drunk driving accident in history took place in May in Carrollton, KY, when a church activity bus was hit head on by a small pickup truck traveling at a high speed in the wrong direction on a divided highway. Just last week, the Safety Board adopted a final report on this accident. We found that the accident was caused by the alcohol-impaired condition of the pickup driver who operated his vehicle opposite the direction of traffic flow on an interstate highway.

This accident, more than any other in recent years, highlights the continuing need for stringent anti-drunk driving laws. We recommended to the Governors of all 50 States that they review their States driving-under-the-influence laws. We particularly favored administrative revocation laws as the single most effective deterrent to chronic drunk driving. Mr. Chairman, I know that this is an area that you have taken great personal interest in, and I want

you to know how strongly I support the initiatives that you have sponsored in Congress to assist the States in adopting administrative license revocation.

HAZARDOUS MATERIALS ISSUES

We continue to investigate significant hazardous materials accidents, including an incident of a cargo fire on board an American Airlines flight from Dallas to Nashville in February. The fire was caused by a chemical spill in the cargo hold. Fortunately the crew was able to land the plane and evacuate passengers without serious injuries.

In pipeline the Board completed several investigations and made numerous recommendations to the Department of Transportation and the pipeline industry for safety improvements. These recommendations are pending.

Most recently we sent investigators to five pipeline accidents in Missouri and Kansas involving the same gas company, and we're in the process of analyzing information gathered in each accident to determine if there is a need for urgent action to prevent recurrences.

BUDGET REQUEST

Our budget request for this year is $25,967,000, which is $607,000 more than last year, but will not cover our increased expenses. We have estimated that this figure will allow the Board to maintain only a 314 full-time equivalent staffing level which represents a drop of 10 positions below the current FTE level of 324.

PREPARED STATEMENT

Mr. Chairman, that concludes my summary. We will be happy to respond to your questions.

Senator LAUTENBERG. Thank you very much. I appreciate it. Your complete statement will be made part of the record.

[The statement follows:]

STATEMENT OF JAMES L. KOLSTAD

Mr. Chairman, I am pleased and honored to be here today to represent the National Transportation Safety Board. At the outset, I want to thank you and the other Members of this Committee for your continued interest and support for Safety Board objectives.

Before I begin a review of the past year's activities, I would like to acknowledge the senior management staff seated behind me. As you well know, Mr. Chairman, able and dedicated staff are key to the success of any organization, and I speak for all my colleagues in commending this management team for its impressive accomplishments.

AVIATION

ACCIDENT STATISTICS

Aviation enjoyed a good year in terms of accident statistics, with decreases in both accident totals and fatal accident rates occurring in all categories of aircraft.

Despite the improved statistics, the Safety Board was confronted with a wide variety of accident investigations, ranging from partial disintegration of a B-737 over Hawaii, an inflight cargo hold fire in an MD-80 over Memphis caused by a hazardous materials spill, and the crash on takeoff of a B-727 in Dallas. Most shocking, of course, was the explosion of a B-747 in the sky over Lockerbie, Scotland, claiming

the lives of 259 persons on board and 11 on the ground. When British investigators revealed that the aircraft was brought down by an explosive device, the tragedy became the most deadly act of sabotage ever perpetrated against a United States carrier.

PILOT TRAINING AND EXPERIENCE

Among numerous issues we confronted in our investigations over the past few years, an issue of continuing concern stands out—pilot training and experience in air carrier operations—and the attendant issue of Federal Aviation Administration (FAA) surveillance of the airlines.

One of the outgrowths of airline deregulation has been the significant increase in demand for qualified pilots. Before deregulation, pilots who met basic qualifications spent years improving their skills before being placed in more demanding positions. Currently, new pilots—though minimally qualified often move to pilot-in-command positions without the experience and seasoning that previously had been realized. In addition, commercial carriers no longer can rely so heavily on the military as a source of well-trained pilots.

In many cases, these minimally qualified pilots begin their careers with a commuter airline and then, after a short time, move on to a major airline. This situation is exacerbated by the high turnover of pilots in the regional airlines—about 40 percent annually overall and as much as 100 percent annually in some cases. This results in a decrease in the overall level of experience in the cockpits of the jet transport category fleet of major airlines as well, a fact brought tragically to the fore when the Safety Board issued its final report in1988 on an accident that occurred in Denver on November 15, 1987.

The Safety Board determined that a Continental Airlines DC-9 crashed on takeoff at Denver's Stapleton International Airport because of the captain's failure to have the airplane deiced a second time after its takeoff was delayed and because of a loss of control during rapid takeoff rotation by the inexperienced first officer.

Both pilots had minimal DC-9 experience. The captain had about 166 hours total DC-9 flight time and only 33 hours as captain. The first officer had only 36 hours in the DC-9, and this was his total jet airplane time. His inexperience was a factor in his rapid rotation of the aircraft. The captain's basic inexperience as a DC-9 pilot, together with his inexperience as a captain supervising the actions of a first officer, left him unprepared to deal with the emergency.

The Board believes that the pairing of pilots with limited experience in their respective positions can be unsafe, particularly when combined with adverse weather. It recommended that the Federal Aviation Administration establish minimum experience levels for paired crews, and the FAA responded that it is reviewing this recommendation.

The Board also recommended that the FAA order airlines to conduct more thorough background checks on pilot applicants, including training records. After the accident it was learned that the first officer had been terminated by a previous employer, a small air carrier, for poor performance on required demonstrations of instrument flight proficiency. He continued to demonstrate difficulties in training and check rides during his training with Continental.

FAA SURVEILLANCE

Further, evidence of deficiencies in operations and airline company oversight came to the Board's attention in its investigation of an August 31, 1988 accident involving a Delta Air Lines' B-727-200 at Dallas-Ft. Worth International Airport in which 13 passengers and a flight attendant lost their lives. Although the aircraft was destroyed in the crash and ensuing fire, 94 occupants, including the three-man flight crew, survived.

At a public hearing into this accident, the Board received testimony that the crew did not follow Delta procedures before takeoff. In addition, the transcript of the cockpit voice recording revealed extensive non-pertinent conversation by the crew while awaiting takeoff clearance. To what extent, if any, these may have contributed to the cause of the accident has not yet been determined as the Board's report has not been completed.

During the summer of 1987, after Delta had experienced several incidents of deficiencies in crew performance, the FAA conducted a special safety audit of the airline. The FAA conducted a follow-up to that audit in September 1988 following the August crash. The follow-up audit revealed that many items cited in the 1987 audit had not been corrected. The safety audits documented deficiencies in Delta's proce-

dures and training. The airline's and FAA's roles in correcting these deficiencies before the accident in Dallas are being examined by the Board.

AGING AIRCRAFT

On April 28, 1988 an Aloha Airlines B-737 experienced an explosive decompression while cruising at 24,000 feet on a flight from Hilo to Honolulu, Hawaii. The crew declared an emergency and landed the airplane successfully at Maui. Examination of the airplane revealed that an approximate 18-foot-long forward section of the fuselage, encompassing much of the sidewalls and roof, ripped off the airplane in flight. A flight attendant standing in the forward cabin area was ejected overboard and killed; three passengers were seriously injured.

The airplane, an early series 200 model, had over 89,000 cycles, the second most of any 737 in the world, exceeded only by another 737 in Aloha's fleet. Inspection of the airplane, and others in the Aloha fleet, showed evidence of corrosion and cracking throughout the airplane structure. The Board's investigation is examining closely the issue of "aging aircraft"; that is, aircraft with high cycles and/or total flight hours, with emphasis on design, certification and maintenance requirements to safely operate these older aircraft.

FOREIGN ACCIDENT INVESTIGATIONS

The Safety Board participates in many foreign accident investigations, fulfilling the obligations of the United States under the International Civil Aviation Organization agreements. Safety Board investigators lead the U.S., FAA and industry representatives who assist foreign governments in their investigations of U.S. airline and U.S. manufactured aircraft accidents overseas. Although the investigations are conducted by other governments, NTSB participation assures us access to vital safety information appropriate to U.S. operations.

For example, on November 28, 1987 a South African Airways B-747-200 Combi (combination cargo and passenger aircraft) crashed into the Indian Ocean, killing all 160 people aboard. Based on information developed in the investigation, the NTSB issued recommendations in May 1988 to the FAA to improve fire detection and suppression methods for class B cargo compartments, such as those found on the Combi.

Other significant foreign investigations the Safety Board participated in during 1988 were:

The September 29 rejected takeoff of an Eastern Airlines Boeing 757 in San Jose, Costa Rica. This was the first accident resulting in substantial damage involving this aircraft type.

The June 26 air show crash of an Air France A-320. U.S. government interest was particularly high because the FAA was in the midst of certification proceedings for A-320 operations in this country.

The October 19 crash of an Indian Airlines Boeing 737 in Ahmedabad, India. Of the 135 persons aboard, only five survived.

The December 21 bombing of Pan American flight 103 over Lockerbie, Scotland.

Already in 1989, the Board is participating in three new foreign accident investigations:

The January 8, 1989 British Midlands Airlines B-737-300 accident on approach following engine difficulty;

The February 8, 1989 Independent Air, Inc. B-707 accident on approach to the Azores, Portugal; and

The February 18, 1989 Flying Tigers crash on approach in Kuala Lumpur, Malaysia.

Additionally, in 1988 the NTSB assisted foreign governments in the readout of 24 flight data recorders and cockpit voice recorders in its Washington laboratory. The NTSB also oversaw the teardown of U.S. manufactured engines at the manufacturers' facilities.

It should be noted that if Pan American flight 103 had disintegrated one half hour later—over the Atlantic Ocean in international waters—that investigation would have been led by the Safety Board.

Estimates of the cost of the British land investigation have been as high as $17 million, and a sea investigation comes at a higher price (estimates for the South African investigation are as high as $22 million). It would take only one such accident under U.S. jurisdiction to deplete the Board's meager financial resources.

Field Investigations

The Safety Board investigated (or caused to be investigated) 2,555 general aviation accidents and 105 incidents in 1988. Most of these mishaps were investigated by the Board's staff located in ten regional offices.

The field staff also conducted 12 major aviation accident investigations in 1988. The major investigations included:

An American Airlines DC-10 that suffered a brake failure during an aborted takeoff and overrun of the runway at DFW Airport, Texas. The investigation has raised serious questions regarding the adequacy of the FAA certification of the DC-10 braking system;

The loss of power of both engines and off-airport forced landing of a TACA B-737-300 near New Orleans;

A United Airlines DC-10 runway overrun at Denver;

Three Learjet accidents—Monroe, Louisiana; West Patterson, New Jersey; and Morristown, New Jersey;

And the investigation of an FAA Israel Aircraft Industries flight-inspection accident near Oak Grove, Pennsylvania.

The Safety Board issued 33 safety recommendations in 1988 based upon its field accident investigations, and has about 45 potential recommendations pending.

Railroad

Since its inception in 1967, the Safety Board has investigated over 50 major railroad collisions involving passenger or freight trains and over 100 major railroad derailments. The nine most recent major accidents investigated by the Board resulted in 25 fatalities, 539 injuries and a total estimated damage of $30 million. More often than not, the areas of crew performance and drug and alcohol abuse became focal points for Safety Board investigators examining the safety issues in these accidents.

Alcohol/Drug Use on Railroads

The tragic Chase, Maryland Amtrak accident in January 1987 was one of several cases where the Safety Board has cited impairment from drugs or alcohol as causal to a railroad accident.

In June 1988 the Board released a safety study that contained an assessment of the results of the first full year of the Federal Railroad Administration's (FRA) new rules dealing with alcohol and drug use by railroad employees.

During 1987 alone, the FRA reported 37 accidents and incidents involving alcohol or drug use by railroad employees, resulting in 19 deaths, 220 injuries, the evacuation of more than 22,000 people and approximately $20 million in railroad-reported property damage. Of the 156 railroad accidents investigated by the Safety Board in 1987, 88 met the FRA criteria for toxicological testing. Of those, alcohol or drug use was found in employees in 27 of them, or nearly 31 percent of the accidents in which tests were taken.

Crew Fatigue

Alcohol and drugs are not the only aspects of derogated crew performance. Fatigue also plays an important role as the Board discovered in its investigation of a head-on collision between two freight trains near Thompsontown, Pennsylvania.

On January 14, 1988 westbound Conrail "trail van" train TV-61--consisting of 61 flat cars loaded with 104 piggyback highway trailers and containers collided with eastbound Conrail UBT-506—carrying 105 hopper cars loaded with coal—near Control Point Thompson. Diesel fuel oil leaking from the tanks of the locomotive units ignited following the collision. About 14,000 gallons of fuel oil were consumed by fire or spilled onto the right of way and contaminated the surrounding area. The collision, which took place about 7:50 a.m., occurred at a closing speed of 71 miles per hour.

Both engineers and brakemen on the two trains were killed. All five locomotives from the two trains derailed; damage was estimated at $6 million.

The Board found that the sleeping crew on the eastbound Conrail train (UBT-506) failed to heed a restrictive signal and ran past a crossover and into the path of TV-61. The latter crew failed to take timely action to slow their train as required by a "restrictive" cab signal.

The Safety Board determined that the probable cause of the accident was the sleep-deprived condition of the engineer and other crewmembers of train UBT-506 which resulted in their inability to stay awake and alert, and their consequent failure to comply with restrictive signal aspects.

In addition, the Board found that unpredictable work/rest cycles, voluntary lack of proper rest before going on duty, and the inadequate alerting and acknowledging devices of the locomotive safety backup system contributed to the accident.

The Safety Board also found that the engineer and brakeman of train UBT-506 probably were chronically sleep deprived because their work shifts and off-duty periods at home were unpredictable and irregular. None of UBT-506 crewmembers probably had more than two hours of restful sleep during the 22-24 hours preceding the accident.

This sleep-deprived condition was compounded by the monotonous environment of the locomotive cab and possibly by their failure to eat a meal for at least 13 hours before the accident. The changing nature of railroad operations and competitive factors have materially increased the relative number of train crewmembers who must work irregular and unpredictable shifts on a long-term basis.

The Safety Board believes that Conrail and the rest of the railroad industry need to make an in-depth assessment of what can be done to restructure their cultural approach to train operations and work/rest cycles.

Highway

The Safety Board during 1988 began investigations of eight major highway accidents and completed a number of others. The Board also adopted safety studies dealing with seat belts and heavy trucks.

ALCOHOL ON THE HIGHWAYS

The worst highway tragedy in 1988 occurred on May 14, just before 11:00 p.m., when a church activity bus was involved in a head-on collision with a small pickup truck near Carrollton, Kentucky. The pickup was traveling at high speed, in the wrong direction on a divided highway, Interstate 71, when it struck the bus.

The bus' fuel tank ruptured and a fire ensued, engulfing the entire vehicle. The bus driver and 26 passengers died; 34 other passengers received minor to critical injuries. Many were overcome by dense smoke as they tried to escape through the rear emergency exit door.

The pickup truck driver, who sustained minor injuries, was legally drunk. His toxicological tests registered 0.26 percent alcohol in his blood (0.10 is the Kentucky legal limit). This was the worst drunk driving accident in U.S. history.

Among the issues examined at a public hearing in August were the performance capabilities of drivers under the influence of alcohol, the extent of drunk driving as a problem in the Commonwealth of Kentucky and in the United States, school bus crashworthiness, flammability of passenger compartment materials, and emergency exit design for school buses.

Just last week, the Safety Board adopted a final report on this accident. We found that the accident was caused by the alcohol-impaired condition of the pickup driver who operated his vehicle opposite to the direction of traffic flow on an interstate highway. Contributing factors to the severity of the accident were the puncture of the bus fuel tank and ensuing fire in the bus, the partial blockage by the bench seats of the rear emergency door which impeded rapid evacuation of the passengers, and the flammability of the bus seats.

We made a number of recommendations as a result of our investigation of this accident. This accident, more than any other in recent years, highlights the continuing need for stringent anti-drunk driving laws. We recommended to the governors of all 50 states that they review their states' driving-under-the-influence laws and implementation. We particularly favor administrative revocation laws as the single most effective deterrent to chronic drunk driving.

And while we believe that school bus transportation is the safest form of transportation in this country, we believe the time has come for phasing out the pre-1977-standard school buses so that all passengers can benefit from the enhanced safety features of the Federal standards.

SAFETY BELTS

Early in the year the Board released a safety study on the effectiveness of combination lap-shoulder belts. The study covered a two-and-one-half-year investigation of the crash performance of lap-shoulder belts in 167 selected vehicle crashes involving 341 occupants and 180 case vehicles.

The NTSB found that lap-shoulder seat belts provided substantial protection to front seat occupants in these crashes. In a wide variety of automobile crash situations for which they were designed to be effective, properly used lap shoulder belts

can reduce the level of serious injuries or chance of death. And in many instances, lap-shoulder-belted occupants fared dramatically better than unrestrained occupants or occupants wearing lap-only belts.

The Board's study, however, revealed cases of lap-shoulder belt misuse that degraded the otherwise excellent protection offered by the three-point belts.

The most common form of lap-shoulder belt misuse appears to be slack in the shoulder portion of the belts. In the cases we studied, lap-shoulder belts equipped with a "windowshade" feature more often were worn with slack than the non-windowshade belts.

The Safety Board urged the National Highway Traffic Safety Administration (NHTSA) to revise publications to eliminate suggestions to drivers and parents transporting children that they misroute a child's lap-shoulder belt or allow children to share a seat belt; and require that windowshade-equipped lap-shoulder belts be tested with the maximum amount of slack that can be introduced, or have these belts equipped with a pre-tensioner as part of the belt system to ensure that slack present in the shoulder portion be taken up during the crash.

NHTSA responded to the first recommendation that they are acquiring additional data through public meetings, and to the second recommendation they do not believe the window shade feature is a safety problem.

In following up on the recommendations, the Board learned that some car manufacturers plan to discontinue installation of windowshade-equipped lap-shoulder belt systems in certain models.

TRUCK SAFETY

The Safety Board released data on 189 selected heavy-truck (10,000 pounds or more) accidents in 1986 and 1987 involving towaway damage. Out of this data, several safety issues have been identified, such as engine retarder misuse, high profile grade crossings, and driver training for twin-trailer operations.

The Safety Board also found that poorly maintained, malfunctioning or inoperative brakes were a significant problem in 32 of the accidents. In particular, the Board found poorly-adjusted brakes, and some carriers involved in the accidents appeared to have performed little, if any, brake adjustment. Other carriers adjusted brakes only if the driver complained; many operators could not provide any maintenance records for the vehicle involved in the accident.

The Board recommended that NHTSA publish a final rule by June 1990 to require automatic slack adjusters on all new trucks equipped with air mechanical brake systems. These devices automatically correct brakes that are out of adjustment.

The Board also recommended that the American Trucking Associations and the National Private Truck Council ask their members to adopt written policies regarding on-the-road brake adjustment. Further, it urged installation of air brake actuation devices that incorporate indicators to warn users when brakes must be adjusted.

Since October 1, 1987, the Safety Board has had underway a study of alcohol and drug involvement in certain fatal truck crashes. For a one-year period, Board field staff investigated every crash fatal to the truck driver in eight selected states (Colorado, Georgia, Tennessee, New Jersey, California, North Carolina, Wisconsin and Maryland). Alcohol tests and tests for 44 other drugs were conducted on the truck drivers. A report on the results of these investigations is planned for spring 1989.

In addition to the toxicological information, a wide variety of other "human factors" related information is being collected in each case in an attempt to shed some light on the other types of circumstances that may affect heavy truck crash involvement. However, a report on these aspects of the study is being delayed due to lack of staff resources.

MARINE

As you know, the Board currently is investigating the cause of what has turned out to be the worst oil spill in U.S. history.

On March 24, the oil tanker EXXON VALDEZ ran aground in Prince William Sound near Valdez, Alaska. The master of the ship had turned command over to the third mate, who lacked the proper Coast Guard certification to pilot the ship through those waters. A toxicological test sample taken from the master revealed a blood alcohol level (BAC) of .061. The sample was taken almost ten hours after the grounding.

The ensuing spill of crude oil has become an environmental tragedy. Issues that have arisen thus far are the suitability for service by the crewmembers and Coast

Guard personnel on duty at the time of the accident, operation of the Coast Guard's vessel traffic service system, and the timeliness of the Coast Guard's initial response to the accident.

CRUISE SHIP SAFETY

While the Safety Board continues to be concerned with the adequacy of Coast Guard regulations to ensure the safety of domestic shipping, the Board began focusing on an element of foreign shipping that can have a profound effect on many U.S. citizens—foreign-registered cruise ships.

Millions of Americans every year enjoy several days or several weeks aboard luxurious cruise ships, most of which ply the Caribbean out of Florida ports. Although the clientele of these ships is almost exclusively U.S. citizens, the ships are foreign-registered, although sometimes U.S. owned. Most passengers do not realize that these vessels are not required to meet the safety standards specified in Federal regulations for U.S. registered passenger vessels.

Two accidents on foreign cruise ships investigated by the Board in 1988 revealed some substantial safety hazards.

On March 15, 1988, the Bahamian-registered SCANDINAVIAN STAR, with over 700 passengers and crew on board, experienced an engineroom fire while the vessel was returning to Tampa, Florida from the Yucatan Peninsula. The motorman on watch discovered the fire but was unable to extinguish it. He signalled the engineer that he was leaving the engineroom to get a firefighter's outfit. (The Honduran motorman and the Filipino engineer did not have a common language and therefore had to communicate through hand signals.) The watch engineer stopped the starboard main engine but did not stop the port main engine or the fuel pump, which continued to provide fuel to the fire.

The crew attempted to activate the remote control release of carbon dioxide, but the system did not function. A crewman then climbed up six decks to the CO_2 room and pulled the three release levers for the 36 CO_2 cylinders, but the levers malfunctioned and the CO_2 cylinders had to be operated manually, one at a time.

The ship's main electrical power was lost about 15 minutes after the fire was discovered and the emergency generator failed to activate automatically. Although emergency battery-powered lighting came on, it did not provide power to the fire pumps. As smoke began flooding into passenger areas, the captain mustered all passengers to their evacuation stations to prepare to abandon ship.

The emergency generator finally was started more than an hour after the fire was discovered. The crew was able to extinguish the engineroom fire within six hours; however, all passengers were put ashore in Mexico the next morning because of inadequate onboard services like running water, air conditioning and main electrical power.

Fortunately, no injuries or loss of life resulted. But the Safety Board held four days of hearings on the SCANDINAVIAN STAR, which reflects the depth of our concern over the safety issues involved.

During these hearings, the Safety Board discovered there had been two previously unreported fires aboard the SCANDINAVIAN STAR in 1985 and 1988.

On November 8 the Norwegian-registered SONG OF AMERICA with over 1,400 passengers and crew also experienced an engineroom fire while on a voyage from Miami to various Caribbean ports. The vessel drifted in the Gulf of Mexico for about five hours without main propulsion power because a portion of the main engine control cables had been destroyed by the fire. After temporary repairs, the ship returned to Miami. Both of these fires indicate that there may be a need for protection from fire of vital electrical control cables located in the enginerooms of passenger vessels.

Hazardous Materials

In recent years, the Safety Board has investigated selected accidents in all forms of transportation that have involved the shipping of hazardous materials. Two potentially disastrous such events occurred in 1988 in the skies over Tennessee and on a remote highway in Florida, while in the heart of Memphis, nine lives were lost.

HAZARDOUS MATERIALS IN THE AIR

The first incident highlighted a long-standing Board concern for safeguards on hazardous materials shipped by air. Chemicals spilled in the cargo hold of an American Airlines' DC-9-83 enroute from Dallas to Nashville on February 3. While on final approach to Nashville Metropolitan Airport, a flight attendant and a dead-

heading first officer notified the cockpit crew of smoke in the passenger cabin. The cabin floor above the mid-cargo compartment was hot and soft, and the flight attendants had to move passengers from the affected area.

The captain, who was aware of a mechanical discrepancy with the auxiliary power unit on an earlier flight that had resulted in inflight fumes, did not declare an in-flight emergency.

However, he advised ground control of the possibility of fire in the cargo compartment after landing and the 126 passengers and crew aboard the plane were evacuated.

Eighteen persons, including ground personnel, received minor injuries—mostly from smoke inhalation. Damage to the aircraft was estimated at a quarter of a million dollars.

The Safety Board's investigation revealed that the probable cause of the inflight fire was a chemical reaction resulting from an unmarked shipment of hydrogen peroxide in a concentration prohibited for air transportation, which leaked and combined with a sodium orthosilicate-based mixture from an undeclared and improperly packaged fiber drum container.

No labels or markings had been affixed to the fiber drum—in which the chemicals had been loaded—to indicate that it contained hazardous materials, and the shipping paper did not describe the contents of the drum as hazardous. The drum, which had no orientation markings or arrows, was laid on its side. The captain was not aware that this shipment of hazardous materials had been loaded on the airplane.

In its final report, the Safety Board noted that 2,269 hazardous materials incident reports for air carriers were filed between 1971 and March 1988 with the U.S. Department of Transportation. Twenty-two of these incidents involved undeclared hazardous materials.

HAZARDOUS MATERIALS ON TRUCKS

The Safety Board began the investigation of a highway accident involving the transportation of hazardous materials on November 30, 1988, in Golden Gate Estates, Florida. In that accident, a tractor-trailer overturned in a sparsely populated farm area while negotiating a turn at an intersection. Unsecured cylinders were thrown from the truck and methyl bromide—a soil fumigant—was released from a puncture in one cylinder.

Ten people—all emergency responders—received injuries as a result of exposure to the chemical. Two Florida highway patrol officers who were the first to arrive on the scene were exposed to the methyl bromide because they were not advised that hazardous materials were aboard the truck, even though other emergency response personnel were aware of this fact. Further, the officers did not see the poison label on the cylinders.

At year's end—on December 23—a truck carrying propane overturned on an exit ramp in Memphis while exiting from an interstate highway. Nine people were killed and another nine injured as a propane tank struck a bridge column, ruptured, and ignited into a fireball. The tank was propelled about 125 yards, where it struck and destroyed a house. Ten vehicles on the roadway and five vehicles parked at nearby homes were damaged, as were some other residences.

PIPELINE SAFETY

As a result of its investigation of a pipeline gas explosion that occurred in Winston-Salem, North Carolina on January 18, 1988, the Safety Board called for 11 new safety improvements in the area of pipeline safety, focusing on corrosion protection programs, employee training, prompt Federal notification and community emergency response procedures. These recommendations are still pending.

In the accident, a natural gas explosion destroyed the building containing the Sheraton Motel lobby and the K&W Cafeteria in Winston-Salem and structurally damaged two adjacent motel buildings. One person was seriously injured in the accident; four others received minor injuries. Property losses totalled $4.5 million.

The Board determined that the probable cause of the explosion was corrosion failure of the gas service pipeline. Contributing to the explosion was the placement of the gas meter and piping in a pit that had direct openings into the building's boiler room. Contributing to the corrosion failure of the service line was the failure of the gas company to provide adequate direction and training for its inspectors to recognize conditions that adversely affected gas company equipment.

The explosion occurred because natural gas accumulated in the boiler room and was ignited by one of several possible sources, such as the boiler's pilot light or elec-

trical equipment in the room. The gas leak that fueled the explosion most likely occurred when the corroded section of the service line failed.

This corrosion likely was caused by atmospheric conditions and may have been aided by electrolytic action. Corrosion severely reduced the wall thickness of the service line over time and penetrated the line in at least two areas, which likely leaked gas long before the accident. The Board continues to work with the industry to seek solutions to the corrosion problem.

Fiscal Year 1990 Budget Request

For fiscal year 1990, the Board is requesting $25,967,000, which is $607,000 more than our fiscal year 1989 appropriation. However, due to significant and uncontrollable increases in costs for such items as pay raises, inflation, toxicological testing, and laboratory equipment, this apparent increase in resources is insufficient to allow the Board to maintain its staff at current levels. In fact, the dollar resources we are requesting will allow the Board to maintain only a 314 full-time equivalent (FTE) staffing level, which is three percent or ten positions below both our OMB ceiling and our fiscal year 1989 level of 324.

We are committed to avoiding reductions in force of permanent staff if at all possible. Since our workload has dictated that we maintain our full authorized staffing level of 324 for as long as our funds will allow, we have thus far this fiscal year been staffed at least at the 324 FTE level. Unfortunately, however, it recently became necessary to impose an agency-wide hiring freeze in order to allow attrition to begin reducing our employment to the 314 level that we will be able to fund throughout fiscal year 1990.

It is very difficult to manage a small, technical agency such as the Board when attrition dictates staffing decisions. As you know, the Board must maintain experts in most functional areas of all modes of transportation. Because of this, there seldom are more than three or four staff in any one specialty, and in many instances only one or two specialists. Therefore, eliminating ten positions will create a hardship, especially when the removal of even one position equates to a 25 to 33 percent reduction in that specialty.

Nevertheless, the Safety Board will make the necessary sacrifices in support of the efforts of the President and the Congress to reduce the Federal deficit, although we expect the effects of our reduced staffing to be felt throughout the agency. We will keep the Committee informed of the impact which this reduction in our appropriation is having on our ability to carry out our legislatively mandated programs.

In order to cope with these reductions, the Safety Board has and will continue to emphasize improved efficiency, productivity, and cost savings. The Board also will continue to ensure that every dollar appropriated for its programs is spent to maximize the safety benefits achieved.

Because of your support, the Safety Board has proven its ability to accomplish independent, efficient and effective investigations and to induce substantial safety and management improvements with a minimum burden on the American taxpayer and without regulatory authority.

That concludes my formal testimony, Mr. Chairman. I would be pleased to respond to questions.

Biographical Sketches

JAMES L. KOLSTAD

James L. Kolstad, who has extensive transportation and aviation experience in both the public and private sectors, became a Member of the National Transportation Safety Board on May 22, 1987. President Reagan designated him Vice Chairman of the Board on March 4, 1988 for a two-year term. He became Acting Chairman August 14, 1988. His term as a Member expires December 31, 1991.

Since joining the NTSB, Mr. Kolstad has headed Safety Board teams investigating the collision and derailment of Amtrak and Burlington Northern Railroad trains in Russell, Iowa on October 12 1987; the November 23, 1987 crash on takeoff of Ryan Air Service Flight 103 in Homer, Alaska, and the crash of American Eagle Flight 3378 on takeoff from Raleigh-Durham Airport on February 19, 1988.

Mr. Kolstad's experience in transportation has been in both private industry and government. He spent 1973-78 as Director of Community and Congressional Affairs for the former Civil Aeronautics Board in Washington. He then joined Frontier Airlines, serving 7 years as head of corporate communications.

Mr. Kolstad's experience also included being a consultant for Skybus, Inc., in Denver and working for the American Trucking Associations in Washington, D.C. His position before appointment to the Safety Board was as a vice president of the Pat Thompson Company, a communications brokerage firm in Englewood, Colorado.

Before 1973, Mr. Kolstad worked for former Congressman James F. Battin of Montana and served as Director of Intergovernmental Relations for the U.S. Department of Transportation. He also was Executive Assistant for Intergovernmental Relations in the Office of the Vice President until he joined the White House Advance Office in 1972.

Mr. Kolstad was born in Washington, D.C. and grew up in Bozeman, Montana. He earned his bachelor's degree in journalism at the University of Montana and, after graduation, was a reporter with the Spokesman Review in Spokane, Washington. Mr. Kolstad took postgraduate courses in political science at the University of Maryland.

From 1962–64, he served in the U.S. Navy.

LLOYD F. MILLER

b. 1934; BA, Psychology, Trinity U.; MPA, Transportation Public Policy, American U.; 1956–1957: Commissioned Officer, Army; 1956–1961: Personnel Management Specialist, U.S. Civil Service Commission; 1961–1963: Management Analyst, Agency for International Development; 1963–1965: Chief, Operations Improvement Branch; AID; 1965–1966: Chief, Organization and Management Branch, AID; 1966–1968: Special Assistant to U.S. Senator William B. Spong, Jr. (VA); 1968–1988: Deputy Managing Director, NTSB; 1988-Present: Acting Managing Director, NTSB.

NTSB RESOURCES

Senator LAUTENBERG. You certainly have had a full load of assignments. Unfortunately, when the National Transportation Safety Board gets involved, it usually spells a disaster either on a personal or community basis. And the work, though I'm sure not pleasant, is vital.

And we respect the fact that you are requesting additional resources. Your scope of responsibilities continues to expand as we recognize areas of potential danger and hazard so that we are glad to have you here and to frankly look at your request very favorably. What we will have to do is work very hard to convince others that the resource allocations become available.

VALDEZ OIL SPILL

In your statement today you stated that the Valdez oil spill raised questions regarding suitability for service of the crew on the *Exxon Valdez*, the suitability of the Coast Guard personnel on duty at the time of the accident, and the timeliness of the Coast Guard's initial response to the accident.

Would you please elaborate on that statement?

Mr. KOLSTAD. Certainly, Senator. Let me try and put in perspective for the committee the focus of our investigation, if I might.

The accident represented several failures or inadequacies of the system or of the rules.

First, after two driving-under-the-influence violations in 2 years, it is unclear whether the Coast Guard or the company was aware of the extent of Captain Hazelwood's alcohol problem.

Second, Exxon was aware that Captain Hazelwood had been treated in an alcohol program, yet it's unclear that Exxon took any steps to determine whether the captain had or continued to have his alcohol problem under control.

Three, the Coast Guard rule allows no more than .04 blood alcohol content while on duty. Yet, 9½ hours after this accident, we found that Captain Hazelwood had a blood alcohol content of .06.

Four, the Coast Guard requires certification before allowing the piloting of a vessel in these waters. In fact, the third mate was not certified to pilot the vessel in these waters.

We have testimony from the State pilot that before departing the vessel, he smelled alcohol on the breath of Captain Hazelwood. Yet, there is no mechanism, nor is there any requirement for the pilot to inform anyone else of this fact.

In spite of the fact that there were three persons on the bridge the night of the accident, including a lookout, no one perceived that they were steaming into danger in spite of the fact that it was a clear night in calm seas and the fact that a lighted buoy marking the reef was on their starboard bow and should have been clearly visible to the three crew members.

Seven, in spite of the fact that the Coast Guard vessel traffic service radar was functioning, the watchstander did not perceive that the ship was outside the traffic boundaries.

And eight, although a barge with antipollution gear is stationed in Valdez Harbor, it took more than double the permitted response time of 5 hours for the barge to get under way.

Also, the barge was equipped to handle spills of approximately 100,000 gallons. This spill was in excess of 10 million gallons.

And finally, Federal rules require testing for alcohol and drugs following an occurrence or accident at the direction of the Coast Guard or the company. Yet, neither the Coast Guard nor the company was prepared to perform these tests in a timely manner.

Senator LAUTENBERG. How long did it take them to do a blood sample for the alcohol test?

Mr. KOLSTAD. It was approximately 10 hours after the accident.

Senator LAUTENBERG. I asked also about the Coast Guard personnel suitability. Do you have a comment on that?

Mr. KOLSTAD. Senator, that is one of the things that we are looking into. There was no particular requirement that they monitor the outbound passage of the *Exxon Valdez* that night. But, in fact, the radar was operating. There was a watchstander. If he had been watching the scope, he could have perceived that the *Exxon Valdez* was outside of the traffic lanes.

Senator LAUTENBERG. I don't know. Again having visited there personally and having become very familiar with the scene, amateur navigator that I am, I was very interested in what they saw and what they did. The Coast Guard—and we're going to be having a Coast Guard hearing next week—did not have a program that required response from the vessel tracking center to a vessel that may have strayed.

Now, that's a very wide channel, as you know. It is also in relative terms fairly deep water. The vessel drew about 60 feet fully loaded, and the little island reef that it hit was at about 33 feet. They had strayed substantially off the channel—substantially—I

think something around a mile after having crossed the northbound channel——

Mr. KOLSTAD. That's correct.

Senator LAUTENBERG [continuing]. Requesting permission to cross the northbound channel.

And one of the things that we are going to be talking to the Coast Guard about was whether or not there was an adequate response. Obviously, that installation is there to track the movement of those ships. It narrows at the top of the channel just before you come to the loading facility. And they never have accidents. They never have problems there because everybody is kind of on guard. But in this long channel down—it's not a perilous journey if the weather isn't bad.

It would be so easy to set up an alarm system that goes off once a vessel moves outside the channel—pick the right size so the draft isn't too deep—and just lets the station know automatically. And I would appreciate it if in your inquiry that you would instruct your people to take a look at that.

Now, I met your representative on the scene there who filled me in on the results of the test on Hazelwood.

Was there a blood urine test performed on the Coast Guard personnel in charge at the time?

Mr. KOLSTAD. There were, yes, sir.

VALDEZ MARINE ACCIDENT

Senator LAUTENBERG. What were the results of that?

Mr. KOLSTAD. They are basically inconclusive inasmuch as the test was taken approximately 15 hours after the accident. And one of the Coast Guard watchstanders admitted that following his duty, which ended at about 8 in the morning, he had had several drinks. He tested .20 when he was tested, which obviously is far too high. In urine, I'm sorry.

I might mention, Mr. Chairman, back to the other point that you just made regarding Coast Guard surveillance of ships in and out of Prince William Sound, our investigators had a dialog with the Coast Guard regarding the advisability of this. And we understand that Admiral Yost has ordered, effective immediately, that watchstanders will observe traffic all the way out of Prince William Sound.

Senator LAUTENBERG. Well, I think that there was responsibility generally, but I'm not certain that the rules were firm regarding what they were supposed to do.

Mr. KOLSTAD. I think you're correct.

Senator LAUTENBERG. Obviously, they are not supposed to stand by and watch an accident happen and say, you know, look what is taking place. They're supposed to do something to try to prevent it.

There was also a suggestion that a navigation chart was marked up indicating a course that would take that ship over the reef. Have you any knowledge about that at all? I'm interested from the standpoint of who marked up the chart. Was it the captain who was below deck at the time? Was it the third mate who was on duty at the time? Because if that is the case, whether or not he was qualified under law to skipper that ship, the fact is, he was at the

helm and that if he was following a course then, of course, there's a question of who gave him that direction.

Mr. KOLSTAD. Precisely.

I'm not personally aware of such a chart, Senator, but the head of our Marine Division who was on scene is here. Could I have him respond to that question?

Senator LAUTENBERG. Sure.

Mr. KOLSTAD. Mr. Lou Colucciello.

Senator LAUTENBERG. Lou is the man that I saw up there. Yes?

Mr. COLUCCIELLO. Yes, Senator. The chart that was in use that evening did have two positions marked on it for the watch; that is, the third mate had located the ship's position. One of them, which was as they were leaving the southbound lane and crossing the zone in between, showed the ship to be moving out of the southbound lane.

The second position, which was just about a few minutes before the grounding showed it—I have a chart that has those positions on it, if you would like.

Senator LAUTENBERG. You have a chart?

Mr. COLUCCIELLO. I have a chart which shows those positions, if you would like.

VALDEZ MARINE ACCIDENT

Senator LAUTENBERG. How wide is the shipping channel itself?

Mr. COLUCCIELLO. Well, the lanes themselves are about a little over a mile wide.

Senator LAUTENBERG. Each of the lanes? The north—is that 2 miles, 1 mile each way?

Mr. COLUCCIELLO. Yes.

Senator LAUTENBERG. That is a natural channel. It doesn't need any dredging.

Mr. COLUCCIELLO. Right.

Senator LAUTENBERG. As I heard the testimony just now, did I hear Mr. Kolstad say that the lighted buoy was to the starboard side of the bow?

Mr. COLUCCIELLO. Correct. It was broad on the starboard bow. It should have always appeared over the port bow.

Senator LAUTENBERG. Of course.

Mr. COLUCCIELLO. If you wish, I could point it out.

Senator LAUTENBERG. Yes, if you would, please.

Mr. COLUCCIELLO. The first position that the third mate put on after the pilot left the ship was at 2339. It shows that he was already moving into the separation zone which is the light colored one in between the two, between the southbound and the northbound lanes.

The next position he put on the chart was taken at 2355. It shows him already well outside of the extremity of the zone, TSS as it's called, and heading at that time at a course of about 200. At this point they should have already recognized the problem and moved back into the lane.

However, they continued on. And when they did discover that they were well outside the lane, they attempted to get back into the lane, steer hard to the right, first 10 degrees right rudder and

then 20 degrees right rudder and then full right rudder. But at that time, it was too late. The ship doesn't move that rapidly.

Senator LAUTENBERG. How fast were they going?

Mr. COLUCCIELLO. They were doing almost 12 knots at the time, but they couldn't turn rapidly enough.

Senator LAUTENBERG. How long would it take to stop a ship like that loaded, almost 1,000 feet long, 250,000 dead tons I think?

Mr. COLUCCIELLO. Yes; it would have taken a little over a mile and a half and it would have taken probably around 7 or 8 minutes to bring it to a stop if they went to a full astern which, of course, didn't happen.

Senator LAUTENBERG. There is no maximum speed limit for these.

Mr. COLUCCIELLO. No; the only speed limit is in the narrows itself. There are no speed limits throughout the rest.

Senator LAUTENBERG. The rest of it is a 2-mile-wide channel?

Mr. COLUCCIELLO. Let me measure it exactly here. This is about 2 miles, almost 2 miles. It widens as you get down here. It is narrower up here.

VALDEZ MARINE ACCIDENT

Senator LAUTENBERG. Since you are in charge of the marine safety aspect, are you aware of the rules, if any, that direct the conduct of the person monitoring the scopes there for the Coast Guard?

Mr. COLUCCIELLO. Well, we have been examining their written instructions and we have interrogated the watches. There seems to be no clear instructions for the watch to monitor the ships after they leave the narrows.

Senator LAUTENBERG. So, in the absence of clear instruction, it can be assumed that there is no responsibility. So, why do they even bother? There has to be something here, and I hope that you're checking that.

Mr. COLUCCIELLO. Yes, we are.

Senator LAUTENBERG. There has to be some reason to put that radar installation where it is at the point in the narrows looking down the channel. I mean, it covers the entire distance I guess to the opening to the sea there, doesn't it?

Mr. COLUCCIELLO. Well, on the 12-mile scale, when you offset the center of the scope, you can probably see clearly down to about 18 miles. Beyond that, the radar is rather marginal.

Senator LAUTENBERG. What is the full length of the channel to—what do you call that?

Mr. COLUCCIELLO. Cape Hinchinbrook. That's the entrance right where it——

Senator LAUTENBERG. What is the distance from the narrows to the——

Mr. COLUCCIELLO. I haven't measured it, but I suspect it is about 26 to 28 miles.

Senator LAUTENBERG. Well, if you would, I'd appreciate a review of the Coast Guard requirement for that person on duty there. I mean, to watch it through the narrows, from that position, you can

almost see it with the naked eye if the weather is all right. I mean, everybody is so on guard there.

Now, immediately after, are you aware of the procedure that was installed that had two escort tugs, one on either side of the vessel?

Mr. COLUCCIELLO. Yes.

Senator LAUTENBERG. Who ordered that? Do you know?

Mr. COLUCCIELLO. I believe it was the Coast Guard. And they are currently practicing that.

Senator LAUTENBERG. That was withdrawn, I heard, after a few days of use.

Mr. COLUCCIELLO. Well, the last time I saw, which was on Sunday—I watched some tankers coming in—they still had two tugs following astern.

VALDEZ MARINE ACCIDENT

Senator LAUTENBERG. It is my understanding that the escort service was withdrawn because of the cost. Now, certainly that was one way because now you have two boats, each one watching the course of the tanker. It's perhaps a belt and suspenders kind of safety, but that's what is almost required.

Mr. COLUCCIELLO. I think I misunderstood you, Senator. There was a practice of having the tug escorts many years ago, and that is perhaps what you were referring to, suspending that. It was after the accident that they reinstituted the tug escort which is the practice now.

Senator LAUTENBERG. Yes; that is what I was talking about, but just for a very short time I am told.

Mr. COLUCCIELLO. Well, they may have been stopped now, but as of Sunday, they were still going on.

Senator LAUTENBERG. I'm going to ask Senator Mikulski now for her questions, and we'll try to get back. Senator?

NTSB RESOURCES

Senator MIKULSKI. Thank you very much, Mr. Chairman. A lot of my questions on the Alaska oil spill, of course, have been asked by you in the very able leadership you are providing.

First, Mr. Kolstad, let me say to you, to your agency, to the people in the 10 regional offices, to the inspectors and investigators, and to all the clerical support, to everyone who is out there doing this job, I'd like to compliment you on the vigorous way that you have approached the agency's activities. And I think what you are sensing here with us is that we view you with such a sense of integrity and independence. You see yourself as part of Federal Government, yet you're independent, but you're not autonomous in the sense of, well, being some think tank. So, we want to thank everyone who is out there.

You have to respond sometimes to the most ghoulish and grizzly of situations. You go there when the fields are still smoking and the blood hasn't been mopped up, and you're there. So, we thank you.

And we know that probably one of your issues is work force, work force retention, work force recruitment. And while we focus on some of these policy issues, I would, first of all, like to ask you

in terms of your budget, what are the resources that you need to do your job? Did you get what you wanted from OMB when you made your request? And do you have what you need in order to do your job, you and the men and women who work with you in those 10 regional offices?

Mr. KOLSTAD. Senator, first I would like to thank you very much for the compliment. I think it is deeply appreciated. The staff is indeed extremely dedicated and very loyal.

We have asked for 347 full-time employees for the past several years because we believe that that is the minimum that we need to do what we feel is an adequate job of investigating transportation accidents in this country. The current level that we have for fiscal year 1989 is 324. Unfortunately, we are now required by the current OMB budget number to take a reduction of an additional 10 FTE's, so we will be down to 314.

While we can still do our job, it becomes increasingly difficult. We have very limited depth in some of our areas. In some cases we have aviation accident investigators, for example, that are on call 24 hours a day 7 days a week without a break. It gets extremely wearing. I think they do this because of their sense of loyalty and dedication and the fact that they really feel like they are making a contribution.

In other areas, the technical areas particularly, we have a depth of one, possibly two, for example, in the cockpit voice recorder and flight data recorder areas, highly technical areas. The Board is recognized I believe as perhaps the best in the world in terms of the readout and the interpretation of this information. We have a depth of one. So, yes, it is getting considerably more difficult to perform our responsibilities.

One of the problems that we are facing is that the accidents are getting a lot more complex. As the equipment gets more technically complex, the accident simply takes longer to do.

So, while we have some discretion in terms of the numbers of field accidents that we can take and the numbers that we sometimes assign to the FAA and the Office of Pipeline Safety, the fact is that it simply is becoming a more complex, difficult job to do with what we have.

SAFETY RECOMMENDATIONS

Senator MIKULSKI. Well, we thank you for those comments, and I think the committee will look very carefully at your appropriation because not only do we rely upon you, but the American people rely upon you.

After you complete your investigations and you make recommendations, as I understand it, your safety improvement recommendations go to the agencies themselves.

Mr. KOLSTAD. Yes.

Senator MIKULSKI. Do you also make—pardon me, I'm new to the committee—do you make recommendations in the area of legislative activity, for example, toward the improvement of statutory authority or where there's an absence of statutory authority? And what is the process followed?

Mr. KOLSTAD. Senator, to give you a broad answer to it, yes. We do make recommendations pertaining to legislation, amendments to legislation. We make them not only, of course, to Federal agencies. We make them to private parties. We make them to Governors, mayors.

Senator MIKULSKI. Like the American Trucking Association——

Mr. KOLSTAD. Absolutely.

Senator MIKULSKI [continuing]. The national Governors can say, well, what do you think we should do, Kolstad.

Mr. KOLSTAD. Absolutely. We make them to everybody and anybody that we think has some responsibility to correct the problems we find.

ACCIDENT REPORTS

Senator MIKULSKI. Do you issue reports the way GAO issues reports? Essentially what they do is send us their regular material to the chairmen and the chair people of subcommittees.

Mr. KOLSTAD. I think probably the closest thing to the GAO reports are our safety studies that we do in particular areas of transportation safety where we find a concern. For example, we are in the process of completing a 4-year study on heavy truck safety involving the behavior of the drivers, the condition of the equipment, all aspects of trucking safety that we hope will be released in the next couple of months.

We are involved in one on cruise vessel safety because of the numbers of fires that have broken out and because of the explosion in the popularity of cruise ships.

We have a number of others that have either just been completed or are under way: one on large schoolbuses, one that we're just completing on small schoolbuses.

Senator MIKULSKI. I understand that but, for example, let's just say after you complete your investigation of the Valdez accident or the Chase, MD, accident, do you then send a heads-up report, if you will, to the chair people of committees saying we have completed our report? These are our recommendations and findings. We think you would find these particular legislative recommendations helpful. And then does your congressional liaison staff come to talk to our staff people to kind of get it moving?

Mr. KOLSTAD. Yes, Senator. With respect to accidents specifically, we issue a report on every accident that we do. And that accident lists the probable cause of the accident, and also it contains conclusions. And finally it contains recommendations that we think should be followed by the various addressees that it is directed toward that we think will be helpful in preventing the same kind of accident from ever occurring again. And that is exactly what, of course, we will be doing in the Valdez accident.

Senator MIKULSKI. I know these are so nitty-gritty management questions, but I have been to so many funerals of my constituents. I can't tell you how heartbreaking it is, and then the families come back and meet with me. Roger Horn from Chase, MD. Lieutenant Williams' dad was in to see me the other day. And Navy diver Steatham's mom broke down at the trial. All those things. I have a personal relationship in my mind and in my heart with the Mary-

land folks. I don't want it to be ever again. So, that's why I am asking these kind of questions.

Mr. KOLSTAD. Certainly.

EMERGENCY RESPONSE PLANS

Senator MIKULSKI. The other is when I look at this, so many of the accidents in your reports and so on, there have been contingency plans, but we fail to follow our own processes, procedures, and so on. Then there is the other issue of fitness for duty.

My question goes to this. Do you think that we need within agencies that very often impact upon safety an inspector general on safety in those agencies who makes sure all these contingency plans are there, that they work? And I could go on and on about it. I use the inspector general just as an example.

But there were contingency plans for Alaska. We find that, first, yes, they existed from what I know from the newspapers. We look forward to your fine investigation. If the contingency had worked, putting the boom around, the ship would have exploded. We would have created our own floating gas tank that would have ignited out of just friction in the air. So, the contingency plan was deeply flawed in its conceptual framework.

Then, second, they couldn't even implement the plan that they had. In West Germany to defend NATO, we have 5,000 drills and exercises and all that parade of the chieftains out there, and yet we don't test our own contingency plans for our own American coastline. I don't know what we're doing.

Mr. KOLSTAD. Senator, you're right.

Senator MIKULSKI. So, how do we get people off their guidelines? How do we get people off their own reports? I wonder if there should be some type of inspector general on safety with their own agencies.

Mr. KOLSTAD. Senator, I think you are right, and sometimes it takes a catastrophe to focus the kind of attention that needs to be focused on things like contingency plans.

The Department of Transportation, as I understand it, has a new safety office. Whether they are involved in contingency plan checking, I don't know.

One of the things that I think is particularly valuable with respect to the Safety Board and it's recommendations is having committees like this probe Federal agencies which come before you and ask them why they haven't adopted some of the recommendations that we have made. That has gone on, and I think that that is particularly valuable in at least focusing more attention by the heads of agencies on some of the recommendations that we think will make a difference.

Senator MIKULSKI. Well, I could go on, but Mr. Chairman, we know we are going to have to adjourn rapidly. I just thought that this might take us into a line of questioning that would be interesting when we talk to the Coast Guard and some of these other agencies like Federal Highways. I mean, I've got drunk drivers on the highways in Maryland. You've got them on I-95. We've got everything from drug dealers to drunk drivers. We've got hazardous cargo that is always overturning on our beltway.

TRUCK SAFETY

Senator LAUTENBERG. Truck safety.

Senator MIKULSKI. We used to have beltway bandits. Now we have beltway bombs and they are underlicensed carriers.

So, I will yield my time back.

Senator LAUTENBERG. We share a common commitment to the work of the NTSB and a common commitment to see that they have resources. It is a bit hard to comprehend at this point when it is obvious that there are more opportunities for accidents and more opportunities for problems, that their budget request actually takes the organization size down.

At this point, I would like to call on Senator Domenici.

Senator DOMENICI. Mr. Chairman, I came thinking that your original schedule was going to be followed, and I only have questions for the Federal Highway Administrator. You indicated that that testimony will take place after lunch, and although I will not be able to be here, I will submit some questions for the record. If you would submit them to be answered, I would appreciate it.

Senator LAUTENBERG. Absolutely. I'm sorry we had that schedule change.

Senator Harkin, we have the NTSB here as a result of a schedule change. Did you have any questions?

Senator HARKIN. No, I didn't, Mr. Chairman.

Senator LAUTENBERG. I'm sorry to disappoint those who wanted to hear from the highway people and have a chance to talk to them. We are reconvening at 1 o'clock.

EMERGENCY RESPONSE PLANS

Senator DOMENICI. Mr. Chairman, could I make an observation on one of the issues that the Senator from Maryland raised?

It may not be totally relevant to this issue, but when you speak of contingency plans and lack of implementation as it relates to the oilspill from the *Valdez* in Alaska, it occurs to me that Exxon could learn something from the U.S. military. If you have a military base that is charged with having a contingency plan in place, for instance, to deliver mobile hospitals to the scene of a new landing strip, it is amazing what occurs. The reason it costs the Federal Government so much money is because the military doesn't just put the plan on a piece of paper, and let the equipment sit on the shelf for 5 or 10 years. No; they test the plan every 6 or 8 months. They update their equipment and techniques, so they will have a modern hospital. The military didn't start these hospitals 20 years ago and leave them there and say, it will work when, and if, we need them. They make sure we're ready for an emergency.

I think the problem is that if we are going to have these kinds of contingency plans, we have to try them out every now and then. We have to make sure that when an emergency occurs, the plans are going to work, and work quickly.

Senator MIKULSKI. If the Senator from New Mexico would yield a minute. That is exactly my point. The military tests for an unknown enemy. We need to test our safety contingency plans for a known enemy. And I think the Senator is absolutely on the right track.

Just a quick anecdote. The reason we saved so many lives at Chase, MD, was because our shock trauma units test readiness for that type of disaster.

I thank the Senator.

MARINE ACCIDENT DIVISION

Senator LAUTENBERG. I asked the question in Valdez whether or not there was the equivalent of a fire drill performed there. And everybody kind of looked blank. What happened is because there were a number of years of relatively accident-free performance there. It was like the breadwinner in the family saying, look, I've lived 10 years, I may as well cancel my insurance policy. I mean, as foolish as it sounds, that's essentially what happened there. You know, I made it this far.

But I wanted to ask you this. How many people are there in the Marine Safety Division?

Mr. COLUCCIELLO. We have eight investigators and one secretary.

BUREAU OF ACCIDENT INVESTIGATION

Senator LAUTENBERG. And what's the breakdown? Does it relate to types of accidents, aviation and highway and that?

Mr. KOLSTAD. We have a Bureau of Accident Investigation which includes five modal divisions: marine, aviation, highway, railroad, and hazardous materials and pipeline.

Senator LAUTENBERG. And when there is an accident abroad in a foreign land that involves either American citizens or American products, airplanes, et cetera, you have a responsibility for investigating that as well.

Mr. KOLSTAD. Mr. Chairman, the country where the aircraft goes down is primarily the country of responsibility for conducting the investigation. However, NTSB is the accredited representative of the International Civil Aviation Organization which is the glue for all aviation worldwide. So, we do send a team in some instances, obviously Lockerbie. Some of the foreign accidents we have recently been involved which include high technology aircraft, new types of aircraft, 737-400's or 747's. Typically we have some discretion in those accidents. But we do try and send a team that is probably more complete than we otherwise would because of the nature of the aircraft and because there are so many of those products carrying American citizens in this country.

Senator LAUTENBERG. So, there is frequent long-distance travel. Again I assume that most of your effort is of emergency nature. You do have routines established for a review of policies and procedures, et cetera.

Mr. KOLSTAD. Certainly.

Senator LAUTENBERG. But the accident investigations are always emergency in nature. You have to be able to dispatch people. You have to have them at the ready. They have to be able to complete the assignments that they're on.

And I would have to say this. There are lots of departments of Government that I have seen that have a lot more redundancy and have much larger staff requirements that don't have the same kind of assignments. And I think you do quite a job with the size staff

that you have. I have seen other parts of Government that would make your staffing look fairly de minimis at best. So, we are going to again try to help.

DRINKING AGE

You noted, Mr. Kolstad, that I have had an active interest in safety, particularly on the highways as it affects drunk driving. I'm the author of the bill that raised the drinking age across the country to 21, and the results there have been very, very good. The absence of grief is something that people don't see, but those of us involved sense what that means when a family doesn't have to sit and mourn over a youngster age 16 to 21. And I am determined to try to do whatever we can to reduce the drunk driving accidents to the extent that we can.

There is an information source that is of value. It still, as I understand it, is being built to its full capacity, and that is the National Drivers' Registration Data Bank.

NATIONAL DRIVERS REGISTER

Now, I introduced a bill to give the Coast Guard access to the NDR, and I want them to be able to use that in considering licenses for tanker pilots or anyone who has responsibility for a ship carrying hazardous and problem-type cargo. If someone has a history of drunk driving, we ought to know before we let him or her control a 1,000-foot vessel with millions of gallons of oil. The volume that that ship carried is staggering for most of us, roughly 60 million gallons.

Would NTSB support this legislation?

Mr. KOLSTAD. We certainly would.

Senator LAUTENBERG. Does the National Transportation Safety Board have access to this file?

Mr. KOLSTAD. Senator, only through the States do we have access to it. It would be helpful to us if we had direct access.

Senator LAUTENBERG. It would help the investigation process, would it not?

Mr. KOLSTAD. It certainly would.

Senator LAUTENBERG. Has the Board ever requested that kind of authority?

Mr. KOLSTAD. I don't believe we have.

We have, I might add, Senator, gotten fairly good—well, we've gotten good cooperation from the District of Columbia in access to it.

Senator LAUTENBERG. Would you want to make that request now that you have direct access to that file?

Mr. KOLSTAD. Yes, certainly.

Senator LAUTENBERG. We will try to amend our legislation to include access to the NTSB. We have given it to FAA. We have given it to the FRA. And there is no reason why a data bank like that shouldn't be available to all those responsible for safety in our system.

COAST GUARD ALCOHOL TESTING

Was it a requirement after the accident for the Coast Guard to test its watchstander?

Mr. KOLSTAD. Yes.

Senator LAUTENBERG. Do we know why it took so long? You were on the scene. Is there any indication that there was a reason for the delay and time in testing?

Mr. COLUCCIELLO. Well, I think that they were very much conscious of the need to test the vessel personnel. I'm not so sure that they were very aware at that moment that they needed to test their own personnel and the realization came somewhat later.

But in any event, regardless, these regulations are quite new, and they really haven't had much experience in implementing them. So, they are really going at it and discovering the problems, the real practical problems that exist in a remote area of getting the medically necessary people to draw blood, et cetera.

Senator LAUTENBERG. It is rumored that one of the Coast Guard people refused to be tested. Is that right?

Mr. COLUCCIELLO. I'm not aware of that. I know the watchstander who was on wasn't asked right away. He went off watch and he was called back after he had eaten and had some drinks.

Senator LAUTENBERG. What was the elapsed time between the time that his shift ended and he was called back? Why was he called back, by the way? Just to muster personnel?

Mr. COLUCCIELLO. No; he was called back individually because they realized that he should have been tested. But he had stood his watch. He had the mid to 8 o'clock watch. Because things were rather hectic, they had asked him to stay on for another 4 hours. So, he had been on for 12 hours in a very, very stressful period.

He was allowed to go home. He went home. He stated that he ate and he had some drinks and he went to bed. It was while he was in bed that he was then called back and told that he was going to have to give a sample.

VALDEZ MARINE ACCIDENT

Senator LAUTENBERG. Did the accident happen after he finished his extended watch time?

Mr. COLUCCIELLO. No; it happened shortly after he assumed the watch.

Senator LAUTENBERG. Well, the accident took place at what time?

Mr. COLUCCIELLO. Just slightly after midnight. He assumed the watch at midnight.

Senator LAUTENBERG. He left the watch at midnight?

Mr. COLUCCIELLO. No; he assumed the watch at midnight, just before midnight. And the grounding happened shortly after midnight.

Senator LAUTENBERG. I thought he was asked to extend his watch time from 8 till 12. Now, are we talking night or day here?

Mr. KOLSTAD. Day.

Mr. COLUCCIELLO. Day.

Senator LAUTENBERG. Day. So, he went on. Midnight was his shift till 8 in the morning. He was then asked, because of the conditions there, to extend his time till noon the following day.

Mr. COLUCCIELLO. Yes.

Senator LAUTENBERG. So, he had a 12-hour shift.

Mr. COLUCCIELLO. Yes.

Senator LAUTENBERG. And he was then relieved. He did whatever he did, and was called back for a blood test. How many hours——

Mr. COLUCCIELLO. For a urine test.

Senator LAUTENBERG. How many hours later?

Mr. COLUCCIELLO. Well, a number of hours after the accident. It was probably around 14 or 15 hours.

Senator LAUTENBERG. Certainly the Coast Guard we would hope would consider immediate testing when there is any kind of participation involved by any of their personnel or any Government personnel in connection with monitoring activities within its portfolio.

PAN AM FLIGHT 103

I just want to ask you a couple of questions—then we have to go—about the Pan Am 103 flight.

The Board participated, as you said earlier, in the investigation of the bombing of Pan Am 103 over Lockerbie. What was the jurisdiction under which you conducted your share of that investigation?

Mr. KOLSTAD. The jurisdiction, Mr. Chairman, was under our role as the accredited representative to ICAO.

Senator LAUTENBERG. And had the bombing occurred somewhat later, not much later, then the jurisdiction would have changed I understand.

Mr. KOLSTAD. About 20 to 25 minutes later, had the aircraft been over international waters, it would have been the NTSB's responsibility, yes, sir.

Senator LAUTENBERG. How would this authority operate relative to a criminal investigation or where intelligence or security agents are involved?

Mr. KOLSTAD. Typically, Mr. Chairman, the Federal Bureau of Investigation is involved in virtually every major aviation accident as a matter of routine. Once they determine that there is not criminal activity involved in the accident, they depart.

In the PSA accident I believe that happened last year, the FBI was on scene, of course, and it was determined that, in fact, there was a criminal act that occurred in the cockpit, and the NTSB stepped aside. But we work hand in hand with the law enforcement side of the business until it is determined that there is or is not criminal activity.

Senator LAUTENBERG. You have no responsibility to do criminal investigations.

Mr. KOLSTAD. No, sir, we don't.

FOREIGN INVESTIGATIVE ASSISTANCE

Senator LAUTENBERG. I understand that the NTSB is asked frequently by foreign governments to help them read out data records, cockpit voice recorders. As a matter of fact, that occurred a couple dozen times in 1988. Why do they request that of you?

Mr. KOLSTAD. Well, I think the first reason is, Mr. Chairman, we are the best. We have the best people, and we have the most practice.

Senator LAUTENBERG. So, the expertise is there, and the fact that these other countries have called on you kind of certifies a skill level that is unique.

Are these countries the allies, friends in Western Europe, or countries like Japan? I'm talking about developed countries with sophisticated travel and aviation systems, et cetera?

Mr. KOLSTAD. Yes; the British have their own capability. The Canadians have their own capability, but oftentimes the other European countries who are allies of ours will use our services.

Senator LAUTENBERG. But it is no secret who called on you.

Mr. KOLSTAD. Oh, no, no.

Senator LAUTENBERG. What countries? Do you recall countries that call on you for help?

Mr. KOLSTAD. Saudi Arabia, Kuala Lampur, India, Brazil. Often we get South American requests.

There is another reason that they do too, Senator, and that is that we perform this service for free. We would like to have the ability to be able to at least charge for our time and expense in doing that. And that expense runs approximately $5,000.

Senator LAUTENBERG. Per readout.

Mr. KOLSTAD. Per readout.

Senator LAUTENBERG. They send the material up.

Mr. KOLSTAD. They send the black box.

Senator LAUTENBERG. Is there a treaty or protocol or something that offers that service to these countries, or is it just an informal thing?

Mr. KOLSTAD. No; it's an informal thing.

SUBMITTED QUESTIONS

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

QUESTIONS SUBMITTED BY SENATOR LAUTENBERG

Valdez, Alaska Oil Spill

SENATOR LAUTENBERG: In your prepared statement for today, you stated that the Valdez oil spill raises questions regarding: (1) the suitability for service of EXXON VALDEZ crew members; (2) the suitability of the Coast Guard personnel on duty at the time of the accident; and (3) the timeliness of the Coast Guard's initial response to the accident. Has the National Transportation Safety Board (NTSB) reviewed the emergency response plan that was in effect at the time of the accident?

ANSWER: We have not had the opportunity to accomplish this process, but a review of the plan will be part of our final report.

SENATOR LAUTENBERG: Do you believe that response plan was adequate, and do you know if it was followed:

ANSWER: Again, our investigation into this matter is ongoing, and we cannot respond at this point.

SENATOR LAUTENBERG: The Coast Guard developed a pollution action plan (known as the "Captain of the Port, Prince William Sound Pollution Action Plan"), dated October 1986. This plan was to be used in conjunction with the Alyeska Pipeline Service Company's "Oil Spill Contingency Plan for Prince William Sound and Port Valdez." Did NTSB comment on either of these plans during their development? (If so, what did NTSB recommend? Were those recommendations adopted?)

ANSWER: No, the NTSB had no oversight responsibilities in the development of the plans and we were not consulted.

SENATOR LAUTENBERG: Did the geographic area covered by the Coast Guard plan include the site of the grounding and spill?

ANSWER: Yes.

SENATOR LAUTENBERG: It is my understanding that, while the local, on-scene coordination plan provides an inventory of containment and clean-up equipment which would be available to deal with oil spills, there is no Federal statutory requirement for a minimum level of containment and clean-up equipment within the portion of Prince William Sound where the grounding and spill occurred. Is that accurate?

ANSWER: Yes.

SENATOR LAUTENBERG: Will NTSB's review deal with the adequacy of planning required by current law?

ANSWER: No. Although we will investigate the timeliness of the initial response to the oil spill and the requirements in this regard by the several applicable contingency plans, we will not evaluate the remainder of the plans nor the actions taken to contain or combat the spill.

SENATOR LAUTENBERG: Should Federal plans be required which specify types and quantities of equipment to be available for incidents like this?

ANSWER: All the emergency response plans we have examined in the other transportation modes provide a list of resources available, procedures for obtaining them quickly, and a command and communications system for carrying out the emergency functions.

SENATOR LAUTENBERG: It is my understanding that the vessel traffic service system (VTSS) is a voluntary traffic management service provided by the Coast Guard. Would making this mandatory be helpful?

ANSWER: Two of the current four major VTS systems operated by the Coast Guard are already mandatory. The term mandatory signifies that certain classes of vessels must participate in the system. The Prince William Sound VTS system is mandatory and covers all of Prince William Sound and Port Valdez.

SENATOR LAUTENBERG: Is VTSS mandatory anywhere, or under certain conditions?

ANSWER: As noted above, two of the four systems currently are mandatory.

SENATOR LAUTENBERG: As part of a mandatory system, should the Coast Guard require a positive radar identification and tracking system?

ANSWER: To be reliable and effective, all systems need a positive identification and tracking system. This may be accomplished by radar and low-light level television monitors.

SENATOR LAUTENBERG: Valdez is now re-opened for full-time operation. Was the Safety Board consulted before this decision was made?

ANSWER: No.

SENATOR LAUTENBERG: Are there new requirements now in place for operations that did not exist before the accident?

ANSWER: The Coast Guard has instituted additional requirements for tankships, including two tug escorts, VTS tracking for the full length of the sound, and restricting passage to daylight hours only.

SENATOR LAUTENBERG: As part of your review of VTSS, will you be studying the adequacy of personnel staffing? (overload, qualifications, etc.)

ANSWER: Yes.

SENATOR LAUTENBERG: In 1975, in a report on the grounding of the HILLYER BROWN, the Board recommended that tankers be equipped with double-hulls. In the absence of double-hulls, the Board recommended that the Coast Guard require additional controls on the movement of tankers. Those steps would include requiring towing vessel assistance, restricting speed, limiting vessel movements to good visibility, and having adequate on-board spill control and containment equipment. Were any of these controls in place in Valdez?

ANSWER: The Prince William Sound Vessel Traffic Manual (1988) requires that tank vessels participating in the VTS Service will follow the following procedures:

Vessel Traffic Center (VTC) Directions -- During conditions of vessel congestion, adverse weather, reduced visibility, or other hazardous circumstances in the VTS Area, the VTC may issue directions specifying times when vessels may enter, or move within or through, or depart from ports, harbors, or other waters in the VTS Area.

Emergencies -- In an emergency, any master may deviate from any rule in the VTS regulations to the extent necessary to avoid endangering persons, property, or the environment.

Movement Reports -- While navigating in the VTS area the master of the vessel shall report the following information to the VTC by radiotelephone:

(a) Any increase or decrease of speed of more than one knot;
(b) The intent to cross through the Traffic Separation Scheme (TSS) at least ten minutes before beginning to cross the TSS; and
(c) When the vessel clears the TSS after crossing.

Reporting Points -- Whenever a vessel enters or departs the VTS Area at Hinchinbrook Entrance and when passing abeam of Naked Island, the master of the vessel shall report the following information to the VTC by radiotelephone:

(a) The name of the vessel; and,
(b) The reporting point.

Joining or Leaving a Traffic Lane --

(a) A radio equipped vessel may join, cross, or leave a traffic lane only after the VTC has been notified of the point at which the vessel will join, cross, or leave the traffic lane.
(b) A vessel crossing a traffic lane shall, to the extent possible, maintain a course that is perpendicular to the direction of the flow of traffic in the traffic lane.
(c) A vessel joining or leaving a traffic lane shall steer a course to converge or diverge from the direction of traffic flow in the traffic lane at as small an angle as possible.

Towing Vessel Assistance -- No laden tank vessel of 20,000 deadweight tons (DWT) or more may transit the Valdez Narrows One-Way Traffic Area unless:

(a) A sufficient number of tugs, as determined by the VTC, are standing by the northern entrance to Valdez Narrows; and,
(b) Tug assistance is utilized when directed by the VTC.

Tug assistance means the use of a sufficient number of tugs properly manned and positioned, with enough power and maneuverability to enable the vessel to accomplish the intended maneuvers safely. Factors to be considered in determining the amount of tug assistance needed are: (a) existing and expected conditions of wind, tide, and current; and, (b) size, displacement, and maneuvering capabilities of the vessel.

Vessel Movement and Speed Restrictions -- No laden tank vessel of 20,000 DWT or more may transit that portion of the Valdez Narrows between Middle Rock and Potato Point at a speed in excess of six knots. A tank vessel of 20,000 DWT or more in ballast is not permitted to transit the Valdez Narros One-Way Traffic Area in excess of 12 knots. A commercial vessel of 300 or more gross tons that is propelled by machinery; each vessel of 100 or more gross tons that is carrying one or more passengers for hire; each commercial vessel of eight meters or over in length in towing another vessel astern; and, each dredge and floating plant are required to participate in the VTS system. On the day of the accident, the radar operators at the Valdez VTC were only directed to monitor by radar the area within the Valdez Narrows.

SENATOR LAUTENBERG: When the recommendations were made, did the Coast Guard respond? Did they implement any of the Board's recommendations?

ANSWER: The investigation into the probable cause of the grounding of the HILLYER BROWN determined that "less pollution would be expected if the vessel had double bottoms." However, since the Coast Guard in 1974 elected not to require double bottoms on oil tankers, the Safety Board recommended in 1975 that the "Coast Guard require additional control of the movement of tankships without double bottoms to insure that their risk of polluting outflow from grounding while operating in a port area is commensurate with that of tankers outfitted with double bottoms."

On April 13, 1987 the Coast Guard stated that they did not concur with that recommendation. In their response the Coast Guard stated "The Coast Guard believes that there is insufficient basis for requiring additional control of tankships with single hulls. Considering many tankships operating in a port area are single-hulled, existing regulations provide Coast Guard captains of the Ports authority to control movements over and above any minimum control requirement. The existing authorities allow denial of entry for non-compliance with the Port and Tanker Safety Act (33 U.C.S. 1221-1232) or the regulations issued thereunder. Specific movement requirements are found in 33 CFR Part 160, Subpart B-Control of Vessel and Facility Operations and Subpart C-Notification of Arrivals, Departures, Hazardous Conditions, and Certain Dangerous Cargoes. Therefore, no further action on this recommendation is anticipated."

SENATOR LAUTENBERG: Would you expect the Board to repeat any of these recommendations as it proceeds with the Valdez investigation?

ANSWER: It is likely there will be recommendations made. However, it would be premature for the Board to speculate or comment as to the content of the recommendations that might be issued before our investigation and analysis of the accident is completed.

SENATOR LAUTENBERG: It's my understanding that the NTSB conducted a preliminary interview with Joseph Hazelwood, the tanker pilot. Will you be seeking further testimony from Mr. Hazelwood?

ANSWER: We have been in contact with Mr. Hazelwood's attorney in order to obtain further testimony from Mr. Hazelwood. In view of pending criminal charges, it is likely that he will invoke fifth amendment rights to avoid testifying.

Outstanding Board Recommendations

SENATOR LAUTENBERG: What outstanding Board recommendations do you believe are the most critical and need quick implementation?

ANSWER: While the Safety Board considers all safety recommendations issued to be important, we do acknowledge that there are some that will have a greater overall impact on transportation safety when implemented. Below is a listing of recommendations we believe are most in need of action. It includes three aviation safety recommendations regarding pilot qualifications and training; one highway recommendation regarding administrative revocation of driver licenses (additional safety recommendations on this same matter have been adopted by the Board but have yet to be issued); four highway safety recommendations regarding bridge condition, stability and inspection; four highway safety recommendations regarding commercial truckdriver qualification and training; one railroad safety recommendation regarding automatic train control; and two railroad safety recommendations regarding drug and alcohol use by railroad employees.

CRITICAL AVIATION SAFETY RECOMMENDATIONS
NTSB SAFETY RECOMMENDATIONS
-- AS OF 4/12/89 --

LOG NUMBER: 2067 RECOMMENDATION NUMBER: A-88-069 ISSUE DATE: 6/27/88 NTSB STATUS: OPEN - ACCEPTABLE ACTION	THE NTSB RECOMMENDS THAT THE FEDERAL AVIATION ADMINISTRATION: EXPEDITE THE ISSUANCE OF GUIDANCE MATERIALS FOR USE BY PARTS 121 AND 135 OPERATORS IN THE IMPLEMENTATION OF TEAM-ORIENTED FLIGHTCREW TRAINING TECHNIQUES, SUCH AS COCKPIT RESOURCES MANAGEMENT, LINE-ORIENTED FLIGHT TRAINING, OR OTHER TECHNIQUES WHICH EMPHASIZE CREW COORDINATION AND MANAGEMENT PRINCIPLES.
LOG NUMBER: 2105 RECOMMENDATION NUMBER: A-88-137 ISSUE DATE: 11/03/88 NTSB STATUS: OPEN - INITIAL RESPONSE RECEIVED	THE NTSB RECOMMENDS THAT THE FEDERAL AVIATION ADMINISTRATION: ESTABLISH MINIMUM EXPERIENCE LEVELS FOR EACH PILOT-IN-COMMAND AND SECOND-IN-COMMAND PILOT, AND REQUIRE THE USE OF SUCH CRITERIA TO PROHIBIT THE PAIRING ON THE SAME FLIGHT OF PILOTS WHO HAVE LESS THAN THE MINIMUM EXPERIENCE IN THEIR RESPECTIVE POSITIONS.
LOG NUMBER: 2105 RECOMMENDATION NUMBER: A-88-138 ISSUE DATE: 11/03/88 NTSB STATUS: OPEN - INITIAL RESPONSE RECEIVED	THE NTSB RECOMMENDS THAT THE FEDERAL AVIATION ADMINISTRATION: AMEND 14 CFR 121.434 TO REQUIRE THAT A SECOND-IN-COMMAND PILOT COMPLETE INITIAL OPERATING EXPERIENCE FOR THAT POSITION WHILE ACTUALLY PERFORMING THE DUTIES OF A SECOND-IN-COMMAND UNDER THE SUPERVISION OF A CHECK PILOT.

LOG NUMBER: H-0394
RECOMMENDATION NUMBER: H-84-013
ISSUE DATE: 4/23/84
ADDRESSEE: ALABAMA, GOVERNOR
ADDRESSEE: CALIFORNIA, GOVERNOR
ADDRESSEE: CONNECTICUT, GOVERNOR
ADDRESSEE: GUAM, GOVERNOR
ADDRESSEE: HAWAII, GOVERNOR
ADDRESSEE: ILLINOIS, GOVERNOR
ADDRESSEE: KANSAS, GOVERNOR
ADDRESSEE: KENTUCKY, GOVERNOR
ADDRESSEE: PENNSYLVANIA, GOVERNOR
ADDRESSEE: PUERTO RICO, GOVERNOR
ADDRESSEE: RHODE ISLAND, GOVERNOR
ADDRESSEE: SOUTH CAROLINA, GOVERNOR
ADDRESSEE: TENNESSEE, GOVERNOR
ADDRESSEE: TEXAS, GOVERNOR
ADDRESSEE: VIRGIN ISLANDS, GOVERNOR
ADDRESSEE: WISCONSIN, GOVERNOR
ADDRESSEE: WYOMING, GOVERNOR
NTSB STATUS:
OPEN - ACCEPTABLE ACTION

THE NTSB RECOMMENDS THAT THE GOVERNORS OF ALABAMA, CALIFORNIA, CONNECTICUT, HAWAII, GUAM, ILLINOIS, KANSAS, KENTUCKY, MICHIGAN, MONTANA, NEW HAMPSHIRE, PENNSYLVANIA, PUERTO RICO, RHODE ISLAND, SOUTH CAROLINA, TENNESSEE, TEXAS, VIRGIN ISLANDS, WISCONSIN, AND WYOMING: ENACT LEGISLATION OR UTILIZE EXISTING AUTHORITY TO PROVIDE FOR ADMINISTRATIVE REVOCATION OF THE LICENSES OF DRIVERS WHO REFUSE A CHEMICAL TEST FOR ALCOHOL OR WHO PROVIDE A RESULT AT OR ABOVE THE STATE PRESUMPTIVE LIMIT.

LOG NUMBER: H-0194
RECOMMENDATION NUMBER: H-80-016
ISSUE DATE: 3/05/80
NTSB STATUS:
OPEN - UNACCEPTABLE ACTION

THE NTSB RECOMMENDS THAT THE FEDERAL HIGHWAY ADMINISTRATION: REVISE THE COMMERCIAL DRIVER DISQUALIFICATION PROVISIONS OF THE FFDERAL MOTOR CARRIER SAFETY REGULATIONS TO PROVIDE THAT THE SPECIFIED DISQUALIFYING DRIVING OFFENSES SHALL BE DISQUALIFYING WITHOUT REGARD TO THE TYPE OF HIGHWAY VEHICLE DRIVEN AT THE TIME OF THE OFFENSE OR WHETHER THE DRIVER WAS ON OR OFF DUTY.

LOG NUMBER: H-0358
RECOMMENDATION NUMBER: H-83-021
ISSUE DATE: 5/09/83
NTSB STATUS:
OPEN - ACCEPTABLE ACTION

THE NTSB REITERATES SAFETY RECOMMENDATION H-75-9 OF MAY 30, 1975, AND FURTHER RECOMMENDS THAT THE BUREAU OF MOTOR CARRIER SAFETY: UPON COMPLETION OF THE TESTING OF THE TRACTOR-TRAILER DRIVER TRAINING STANDARDS, THE SAMPLE MODEL CURRICULUM, AND FINAL EXAMINATION CRITERIA, AMEND PART 391, "QUALIFICATIONS OF DRIVERS," OF THE FEDERAL MOTOR CARRIER SAFETY REGULATIONS TO INCLUDE CRITERIA AND STANDARDS FOR THE TRAINING OF TRACTOR-TRAILER DRIVERS.

LOG NUMBER: H-0474L
RECOMMENDATION NUMBER: H-86-027
ISSUE DATE: 7/14/86
NTSB STATUS:
OPEN - ACCEPTABLE ACTION

THE NTSB RECOMMENDS THAT THE FEDERAL HIGHWAY ADMINISTRATION: EXPEDITE DEVELOPMENT OF A BATTERY OF KNOWLEDGE TEST QUESTIONS AND PERFORMANCE TEST PROCEDURES, BASED ON THE MODEL CURRICULUM OF THE BUREAU OF MOTOR CARRIER SAFETY PROPOSED MINIMUM STANDARDS FOR TRAINING TRACTOR-TRAILER DRIVERS, AND BEGIN AS SOON AS POSSIBLE THE VALIDATION STUDY AND COST/BENEFIT ANALYSIS OF THE PROPOSED STANDARDS AND MODEL CURRICULUM.

LOG NUMBER: H-0498
RECOMMENDATION NUMBER: H-87-036
ISSUE DATE: 8/03/87
NTSB STATUS:
OPEN - ACCEPTABLE ACTION

THE NTSB RECOMMENDS THAT THE FEDERAL HIGHWAY ADMINISTRATION: AMEND 49 CFR 391.15 TO SPECIFY THE NUMBER AND TYPE OF VIOLATIONS OF MOTOR VEHICLE LAWS AND THE TIME INTERVAL IN WHICH THEY ARE COMMITTED THAT WOULD RESULT IN QUALIFICATION FOR OR DISQUALIFICATION FROM DRIVING A MOTOR VEHICLE IN THE INTERSTATE COMMERCE.

LOG NUMBER: H-0517
RECOMMENDATION NUMBER: H-88-016
ISSUE DATE: 6/08/88
NTSB STATUS:
OPEN - INITIAL RESPONSE RECEIVED

THE NTSB RECOMMENDS THAT THE FEDERAL HIGHWAY ADMINISTRATION: EXPAND THE SCOPE OF THE FEDERAL-STATE COOPERATIVE RESEARCH PROGRAM ON EVALUATING BRIDGE PERFORMANCE DURING FLOOD CONDITIONS TO INCLUDE THE DOCUMENTATION AND ANALYSIS OF RIPRAP STABILITY AT APPLICABLE BRIDGE SITES; DISSEMINATE THE RESULTS OF THIS EXPANDED STUDY TO OWNERS OF BRIDGES.

LOG NUMBER: H-0517
RECOMMENDATION NUMBER: H-88-017
ISSUE DATE: 6/08/88
NTSB STATUS:
OPEN - INITIAL RESPONSE RECEIVED

THE NTSB RECOMMENDS THAT THE FEDERAL HIGHWAY ADMINISTRATION: ENCOURAGE STATES TO CONDUCT IN-DEPTH HYDRAULIC STUDIES DURING REHABILITATION AND RECONSTRUCTION OF BRIDGES OVER WATER TO DETERMINE IF CHANGES IN THE STREAM FLOW AND STREAMBED HAVE AFFECTED THE ADEQUACY OF THE INITIAL DESIGN.

LOG NUMBER: H-0517
RECOMMENDATION NUMBER: H-88-018
ISSUE DATE: 6/08/88
NTSB STATUS:
OPEN - INITIAL RESPONSE RECEIVED

THE NTSB RECOMMENDS THAT THE FEDERAL HIGHWAY ADMINISTRATION: REQUIRE ALL STATES THAT HAVE NOT DONE SO WITHIN THE LAST YEAR TO CONDUCT UNDERWATER INSPECTIONS OF ALL THEIR BRIDGES FOUNDED ON SPREAD FOOTINGS FOR EVIDENCE OF SCOUR (SUCH AS MOVEMENT OF RIPRAP, DEVELOPMENT OF SCOUR HOLES IN THE STREAMBED, AND CHANGES IN THE STREAMBED MATERIAL COMPOSITION), PLACING PRIORITY ON THOSE BRIDGES WITH NONREDUNDANT DESIGNS.

LOG NUMBER: H-0517
RECOMMENDATION NUMBER: H-88-019
ISSUE DATE: 6/08/88
NTSB STATUS:
OPEN - INITIAL RESPONSE RECEIVED

THE NTSB RECOMMENDS THAT THE FEDERAL HIGHWAY ADMINISTRATION: COMPEL, BY WITHHOLDING FEDERAL FUNDS IF NECESSARY, THE OWNERS OF ALL PUBLIC BRIDGES INCLUDING THOSE NOT OWNED BY THE STATES, TO COMPLY WITH THE NATIONAL BRIDGE INSPECTION STANDARDS.

LOG NUMBER: R-0566
RECOMMENDATION NUMBER: R-87-001
ISSUE DATE: 1/15/87
NTSB STATUS:
OPEN - ACCEPTABLE ACTION

THE NTSB RECOMMENDS THAT THE NATIONAL RAILROAD PASSENGER CORPORATION (AMTRAK): IMMEDIATELY INITIATE A PROGRAM WHICH WILL ASSURE THAT ALL LOCOMOTIVES OPERATING ON THE HIGH SPEED PASSENGER TRAIN TRACKAGE OF THE NORTHEAST CORRIDOR ARE EQUIPPED WITH A DEVICE WHICH WILL CONTROL THE TRAIN AUTOMATICALLY AS REQUIRED BY THE SIGNAL IF THE ENGINEER FAILS TO DO SO.

LOG NUMBER: R-0604
RECOMMENDATION NUMBER: R-88-027
ISSUE DATE: 8/09/88
NTSB STATUS:
OPEN - INITIAL RESPONSE RECEIVED

THE NTSB RECOMMENDS THAT THE FEDERAL RAILROAD ADMINISTRATION: AMEND 49 CFR PART 219 TO REQUIRE TOXICOLOGICAL TESTING OF ALL EMPLOYEES INVOLVED IN ANY IMPACT ACCIDENT RESULTING IN AN INJURY AS DEFINED IN 49 CFR 225.5(3)(III).

LOG NUMBER: R-0604
RECOMMENDATION NUMBER: R-88-031
ISSUE DATE: 8/09/88
NTSB STATUS:
OPEN - INITIAL RESPONSE RECEIVED

THE NTSB RECOMMENDS THAT THE FEDERAL RAILROAD ADMINISTRATION: AMEND 49 CFR PART 219 TO REQUIRE RAILROADS TO COLLECT ALL APPROPRIATE TOXICOLOGICAL SAMPLES AS SOON AS PRACTICABLE AND NOT MORE THAN 4 HOURS AFTER THE TRIGGERING EVENT. WRITTEN EXPLANATION OF THE REASON(S) FOR FAILURE TO COLLECT SAMPLES WITHIN 4 HOURS OR NOT AT ALL MUST BE SUBMITTED TO THE FEDERAL RAILROAD ADMINISTRATION.

SENATOR LAUTENBERG: Why are these the most critical recommendations?

ANSWER: The Safety Board considers these to be critical and in need of prompt action because they portray national safety problems that can be corrected with a minimum of disruption to the transportation systems. The issues involved in these 15 safety recommendations have been demonstrated by recent accidents or incidents to be in need of prompt action.

SENATOR LAUTENBERG: When do you expect to see action on these critical recommendations?

ANSWER: It is difficult to place a time for completion on these rather recent safety recommendations. All of those listed have either just been responded to or are in an "Open--Acceptable Action" status. The one exception to this is related to commercial truck driver training which is now in an "Open--Unacceptable Action" status. In general, there is some ongoing activity on all of these safety recommendations, and we would push for some resolution within the next three years.

SENATOR LAUTENBERG: List the Safety Board's outstanding recommendations by mode, the year made, and agency responsible for responding.

ANSWER: There are 1630 safety recommendations currently being held in an open (outstanding) status. By mode, there are:

Aviation	396
Highway	334
Intermodal	69
Marine	415
Pipeline	156
Railroad	260

The computer list below gives the subject of each of these safety recommendations, the date of issue and the addressee (agency responsible for responding).

[CLERK'S NOTE: Due to the large number of outstanding recommendations, this information will be kept at the subcommittee office.]

SENATOR LAUTENBERG: On page 8 of your testimony, you state that in 1988, based on field accident investigations, 33 aviation safety recommendations were issued, and 45 potential recommendations are pending. What determines when a potential recommendation moves to an actual recommendation?

ANSWER: Recommendations generally are proposed initially by technical staff in conjunction with accident investigations or safety studies. The proposals next are reviewed at the mid-management level, and then by senior management. Those that are approved by senior management then are submitted to the Board Members in a formal notation process. The Board Members then approve, amend or reject the recommendations, and those that are approved get sent officially to the appropriate government or private entities.

SENATOR LAUTENBERG: List, and briefly describe, the potential recommendations pending.

ANSWER: The Safety Board does not maintain such a list. In view of the cumbersome review process in which recommendations are dropped as impractical, unnecessary, etc., and are constantly changing, a list would be obsolete before it is devised. Thus we concentrate our limited recommendation staff resources on following up on recommendations made to maximize the potential for action.

Funding -- Other Needs

SENATOR LAUTENBERG: In addition to the personnel request, what else was in the Board's request for fiscal year 1990 that was not funded?

ANSWER: In addition to our request for 23 positions, the following other items were not funded.

$50,000 -- Laboratory Equipment -- Laboratory equipment is used to retrieve and analyze information from accident crash recorders, air traffic control, radar and audio recordings, video, photographic and laser transit scene analysis, analyze aircraft performance data and graphically recreate accident sequences using computer generated images.

Due to the new FAA flight recorder requirements, the Safety Board's lab is anticipating a two to three-fold increase in the volume of flight recorders that will be analyzed in the coming years. The existing equipment for CVR and DFDR readouts is approximately six to ten years old. This equipment needs to be updated with more modern and flexible equipment. The equipment described below will help the Board maintain its high quality and timeliness standards despite this significant increase in workload.

$13,000 The Laboratory's VAX computer network, due to increasing usage, is approaching 80% available on-line disk storage in use. A new RA-82 Disk Drive would relieve this storage problem for the foreseeable future.

$25,000 The audio lab needs a replacement Nagra T Audio tape recorder to supplement the aging, existing equipment. Two machines are necessary to perform a quality CVR tape readout and with six year old existing equipment it is getting

$12,000 ILS signal processing software to do quantitative analysis of CVR Audio recordings.

$800,000 -- Mainframe Computer Upgrade -- The Board's current mainframe computer is five years old, however, the technology used for its design is 15 years old. With the tremendous technological advancements made over the past 15 years, the Board's computer is quickly approaching obsolescence. This is corroborated by a recent General Services Administration (GSA) report entitled "Computer Obsolescence: Federal Government and Private Sector" which states that the average age of the Federal Government's larger computers is 7 years and 11 months as compared to the average age of the Fortune 500 companies four years and two months. This difference in age translates into a significant difference in computing capability. GSA's report notes that the Fortune 500 companies

large computers are processing instructions almost four times faster than the Federal Government's large computers.

In addition, the Safety Board has been notified by the computer vendor that no further operating system enhancements will be made for this computer. The Board also is anticipating that vendor-provided maintenance will be either curtailed or made very expensive at some future time. These items are a logical result of approaching computer obsolescence.

This situation, coupled with the fact that the Safety Board cannot make use of new computer networking software products that are now available on computers using newer technology, puts the Board in a position where changing to a mainframe computer that does not present these problems associated with obsolescence is vital to the Board's continued efficient operations.

The amount requested would cover costs associated with the purchase of a newer, more technologically advanced mainframe computer, as well as anticipated software conversion costs.

$70,000 -- Microcomputer Hardware -- Additional microcomputer memory and printers are needed to fulfill anticipated increases in workload and microcomputer applications to increase Safety Board productivity. Since the Board established its microcomputer system in FY 1985, there has been a continual increase in the number of users and the applications that have been implemented. This growth is expected to continue. During FY 1990, the Board plans to upgrade its microcomputer systems that now support the office automation system to provide the additional capability required for inputting aviation and railroad accident data at the Board's various field office locations. Spreadsheet and data base software also has been added to the field office microcomputers which is intended to provide assistance in the area of budgeting, accounting, and workload management. Productivity improvements resulting from expanded use of microcomputers will continue to be important in the future as further increases in workload occur.

$55,000 -- Software for Marine Architectural Analyses -- In the past, the U.S. Coast Guard has provided the personnel and facilities, including computer time and software, to perform naval architectural calculations and engineering studies as necessary for our joint investigations. A significant part of this work was performed by the Merchant Marine Technical Branches in New Orleans, New York and San Francisco. However, the Merchant Marine Technical Branches have been consolidated into one Marine Safety Center at Coast Guard Headquarters with fewer personnel, and their ability to respond to our needs has diminished accordingly. Also, the Coast Guard is reluctant to perform the calculations/studies for those cases where NTSB conducts an independent investigation. We anticipate the need to begin contracting out some of this work to local naval architectural firms, but it would be more cost effective and efficient to provide in-house capability to perform some of the more routine calculations. To provide this capability would require the development of specialized software for the NTSB computer.

$975,000 -- Total Unfunded Items

SENATOR LAUTENBERG: How critical are these requests, and what benefit are they to the Board? (Please elaborate)

ANSWER: All of these items are critical to ensuring accurate and timely investigative analyses and to enhance overall productivity of Safety Board staff. Each item is elaborated in the response to the previous question.

Aviation -- Pilot Training and Experience

SENATOR LAUTENBERG: As you point out in your prepared statement, since deregulation, there has been an increased demand for pilots. This has resulted in less qualified pilots being placed in demanding positions without a great amount of experience. Have there been any accidents/incidents, etc., that the Board directly or indirectly attributes to this pilot experience situation?

ANSWER: The Safety Board has investigated several accidents in which pilot experience, either in toto or in the type of aircraft being operated, was a factor in the accident or incident since deregulation. These occurred in a variety of aircraft, large and small, sophisticated as well as relatively unsophisticated, operated under the provisions of 14 CFR 121, which applies to air transport operations of aircraft with 30 or more passenger seats, and 14 CFR 135, which applies to scheduled regional or commuter airline operations.

The list of accidents is not a comprehensive one; rather, it highlights prominent accidents, or accidents which are illustrative of the category of accident in which pilot experience was found to relate to the accident cause.

SENATOR LAUTENBERG: If so, please explain/elaborate.

ANSWER: Perhaps the most prominent of the accidents occurred on January 13, 1982 in which an Air Florida Boeing 737 struck the 14th Street Bridge and plunged into the Potomac River shortly after takeoff from Washington National Airport in Washington, D.C. Seventy four of the 78 persons on board and four persons on the ground were killed. The Safety Board concluded that several factors caused the accident, among them ice adhesion to the wings resulting from the flight crew's failure to determine that the airplane was free of airfoil contamination before takeoff, and reduced thrust due to improper flight crew ground operation before taxi. The Safety Board found the crew inexperience in cold weather air transport operations was a factor in the accident.

On August 2, 1984 a Vieques Air Link Britten Norman Islander, on a scheduled revenue passenger flight operating under 14 CFR 135 to St. Croix, U.S. Virgin Islands, crashed into the ocean shortly after takeoff from Vieques, Puerto Rico. All nine onboard, eight passengers and one crewmember, were killed in the accident. The Safety Board determined that the aircraft lost power in the left engine just after takeoff due to water contamination in the fuel. The pilot-in-command then failed to properly execute an emergency engine-out procedure which led to the accident. The Safety Board concluded that the pilot was relatively inexperienced in multi-engine airplanes and that his inexperience led to this failure to control the airplane following the loss of the engine.

On September 23, 1985 a Henson Airlines Beech 99 with 12 passengers and two crewmembers onboard, crashed while on approach to Shenandoah Valley Airport, Weyers Case, Virginia. The investigation found that the airplane went off course during the approach and struck a mountain during instrument meteorological conditions. The Safety Board found that because of the rapid turnover among Henson pilots, there was "a reduction of minimum experience required of Henson's entry level pilots." Consequently, the Safety Board concluded that both pilots had "limited time in their respective positions as captain and first officer" on the Beech 99 and that these factors, with others, contributed to the cause of the accident.

On November 15, 1987 a Continental Airlines DC-9-14, with 77 passengers and five crewmembers onboard, crashed shortly after takeoff from Denver's Stapleton International Airport. Twenty-five passengers and two crewmembers were killed, and one crewmember and 27 passengers were seriously injured. The investigation revealed that the airplane took off in subfreezing conditions, during a snowstorm, having been deiced approximately 27 minutes earlier -- a period in which the airplane became contaminated from freezing precipitation on its airfoils.

The Safety Board found that, although the pilots were experienced aviators, the first officer "was not experienced in the DC-9 or in any swept-wing turbojet airplane," while the captain "was not experienced in the DC-9." Moreover, the Safety Board concluded that the pairing of these crewmembers was inappropriate due to their relatively low experience in the DC-9 and that the lack of controls governing operations by "newly qualified flight crewmembers," with other factors, contributed to the accident.

On February 19, 1988, an AVAir Inc. Fairchild Metro III, operating as Air Virginia flight 3378, crashed in Cary, North Carolina shortly after takeoff from Raleigh Durham International Airport. Ten passengers and two flightcrew members were killed. The Board questioned the advisability of the captain allowing the first officer to fly the airplane in restricted visibility conditions, especially given the fact that difficulties in the first officer's piloting was documented and known within the company.

SENATOR LAUTENBERG: What is the average years of experience of pilots who work for: (1) the major airlines; (2) the commuter airlines; (3) the regional airlines; and (4) the cargo carriers?

ANSWER: The Safety Board does not have information on the average years of experience of pilots employed by major airlines, commuter airlines, regional airlines and cargo carriers. However, we have obtained information on the average flight hours of pilots employed by the major airlines, by regional airlines and by the national airlines. The information was supplied by the Future Aviation Professionals of America (FAPA) of Atlanta Georgia. (This information was supplied by FAPA, and permission granted for the NTSB's use of the information, on condition that FAPA be cited as the source of the information.)

The designation of the type of air carrier is determined by the U.S. Department of Transportation by the amount of carriers annual

revenues. Typically, a major airline is a large carrier such as TWA or United, a national airline is a smaller carrier, albeit with large equipment such as Midwest Express or Aloha Airlines, while a regional airline, previously referred to as a commuter airline, is a smaller operator such as Henson Airlines, Horizon Airlines and Pennsylvania Airlines.

In calendar year 1988, the FAPA survey of pilots indicated that the average of total number of flight hours of pilots hired by major airlines was 3,596.6, with a range of 800 to 25,090 hours. The average total flight hours of pilots hired by national airlines was 5,971.6, with a range of 1,550 to 20,800 hours. The average total number of hours for regional airline pilots hired in 1988 was 3,124 with a range of 350 to 23,200 hours. The average hours of jet time of the pilots hired in 1988 by major, national and regional airlines was 2,608.3, 2,038.3 and 277.2 respectively.

SENATOR LAUTENBERG: Could you provide the Committee with a list of the airlines and the average years of experience their pilots and copilots possess?

ANSWER: The FAPA surveyed the major airlines to determine how many pilots were hired and the average total flight hours of those hired. American hired 519 pilots in 1988 with an average of 3,211.9 total flight hours, ranging from 970 to 12,000 flight hours. Continental hired 108 pilots, with an average of 4,369.1 total flight hours, ranging from 1,250 to 12,381 total flight hours. Delta hired 874 pilots, with an average of 2,688.3 flight hours, ranging from 1,200 to 9,500 total flight hours. Eastern hired 165 pilots, with an average of 4,000.9 total flight hours, ranging from 1,518 to 9,000 flight hours. Northwest hired 196 pilots, with an average of 3,015.3 total flight hours, ranging from 1,240 to 10,000 total flight hours. Pan American World Airways hired 51 pilots in 1988, with an average of 3,486.8 total flight hours, ranging from 800 to 12,539 total flight hours. TWA hired 389 pilots in 1988, with an average of 4,350 total flight hours, ranging from 1,000 to 9,500 total hours. United hired 220 pilots in 1988, with an average of 4,350 total flight hours, ranging from 1,000 to 8,500 total flight hours. USAir hired 410 pilots, with an average of 3,596.6 total flight hours, ranging from 800 to 25,090.

SENATOR LAUTENBERG: Are there any carriers in particular that the Board feels has a problem in this area? If so, which ones?

ANSWER: The Safety Board cannot address the issue of the qualifications of the pilots hired by airlines without examining many variables in depth, which it does not have the resources to carry out at present. For example, the FAPA survey also included such information on pilot applicants as: Federal Aviation Administration (FAA) licenses and ratings, total turbojet and/or turboprop experience, aviation background such as military, corporate, regional, education level, age, height, weight, and visual acuity. Moreover, the airlines often use information that is quite difficult to quantify, such as the results of an interview, as well as other information, further limiting the Safety Board's ability to determine the effects of such information on flight safety.

SENATOR LAUTENBERG: What recommendations has the Board made in this area?

ANSWER: The Safety Board has followed closely the safety of operations of commuter flight, now referred to generally as regional airline flights. For example, in 1980 the Safety Board convened a public hearing and conducted a special study to examine commuter airline safety. Thereafter, the Safety Board issued several safety recommendations on commuter airline operations to the FAA. Among them was recommendation A-80-069 which called for the FAA to "Amend 14 CFR 135.243 to require a minimum number of multiengine flight hours for a pilot-in-command of a multiengine commuter airline flight."

In response to the recommendation, the FAA issued 14 CFR 135.244, which established minimum operating experience levels for crewmembers operating single- or multi-engine, reciprocating, turbine or turbojet powered aircraft. The Safety Board, as a result, closed the recommendation and classified it "Acceptable Alternate Action."

In 1986, following three accidents involving regional airlines, all of which were on approach to landing (a Bar Harbor Airlines Beech 99 near Auburn, Maine, August 25, 1985; the Henson Airlines Beech 99 on September 23, 1985; and a Simmons Airlines Embraer Bandirante EMB-110 near Alpena, Michigan on March 13, 1986), the Safety Board issued several recommendations to the FAA addressing various aspects of operations conducted under 14 CFR 135. The recommendations included the following which asked the FAA to:

A-86-098 -- Amend 14 CFR 135 to require periodic instrument proficiency checks for all second-in-command pilots required in commuter air carrier operations.

A-86-100 -- Issue an air carrier operations bulletin-Part 135 directing all principal operations inspectors to require commuter air carrier operators to delineate in their operations and training manuals missed approach procedures commensurate with pilot-in-command standards.

A-86-102 -- Revise paragraph 72 of the air operations inspector's handbook-Part 135 (8430.1D) to include guidance to principal operations inspectors regarding the standards and level of precision to which pilots-in-command and second-in-command pilots should be tested

A-86-108 -- Issue an air carrier operations bulletin-Part 135 requesting principal operations inspectors to put special emphasis on their check airmen program to assure that company pilots are evaluated properly and that check airmen apply the training and check ride standards in a strict and standardized manner.

SENATOR LAUTENBERG: What is the result of that recommendation. Timetable for implementation.

ANSWER: The Safety Board believes that the FAA has responded favorably to these recommendations. For example, in response to recommendation A-86-098, the FAA revised their policy regarding instrument proficiency checks for pilots operating under 14 CFR 135. Similarly, in response to recommendations A-86-100 and A-86-102 the FAA revised its policy on instrument proficiency check requirements for pilots trained under the provisions of 14 CFR 135.

The FAA responded to A-86-108 also by amending their policy on interpretation of 14 CFR 135 with regard to initial and recurrent testing requirements. As a result, the Safety Board has classified the recommendations as either "Acceptable Action" or "Acceptable Alternate Action."

Following the Continental Airlines DC-9 accident in Denver, in which the Safety Board concluded that both pilots were inexperienced in their respective positions on the DC-9, the Safety Board issued the following recommendations to the FAA regarding the experience of pilots operating under 14 CFR 121:

A-88-137 -- Establish minimum experience levels for each pilot-in-command and second-in-command pilot, and require the use of such criteria to prohibit the pairing on the same flight of pilots who have less than the minimum experience in their respective positions.

A-88-138 -- Amend 14 CFR 121.434 to require that a second-in-command pilot complete initial operating experience for the position while actually performing the duties of a second-in-command under the supervision of a check pilot.

A-88-141 -- Require commercial operators to conduct substantive background checks of pilot applicants which include verification of personal flight records and examination of training, performance, and disciplinary records of previous employers and Federal Aviation Administration safety and enforcement records.

The FAA's response to these recommendations is presently being evaluated by the Safety Board, and we will determine the classifications of the FAA response to the recommendations shortly.

SENATOR LAUTENBERG: Please update the Committee on the outcome of the Safety Board's investigation into the Delta Airlines crash at the Dallas-Ft. Worth Airport in August 1988.

ANSWER: The Safety Board is nearing the completion of the gathering of factual information on the accident. In mid-March a major activity was concluded with the completion of a flight test, flight test demonstrated that a Boeing 727-200 series airplane in a "split-flap" configuration, that is, with its inboard trailing edge flaps properly extended but the outboard flaps retracted improperly, will take off successfully.

The Safety Board staff is presently analyzing the data from the flight test and other data collected during the investigation. The results of the investigation activities will be written up in a draft report that is expected to be sent to the Board this summer for its review and consideration.

QUESTIONS SUBMITTED BY SENATOR MIKULSKI

Exxon Valdez

SENATOR MIKULSKI: Senator Lautenberg has introduced a bill that I have co-sponsored that will permit the Coast Guard access to the National Driver Register, a data bank for the collection and distribution of records of serious motor vehicle operator violations. That includes drunk driver records. What are your views on the creation of such a register for all transportation modes? Is it feasible?

ANSWER: The Safety Board believes that access to motor vehicle driving records would enhance the ability of the Coast Guard to evaluate the fitness of prospective and current mariners seeking a license or license renewal. The Board already has taken a position on this before Congress in the railroad and aviation modes. Additionally, the Board recommended that the Federal Aviation Administration:

> A-87-15 -- Seek legislative authority to use the National Driver Register (NDR) to identify airmen whose driving licenses have been suspended or revoked for alcohol-related offenses.

It is the Safety Board's experience that motor vehicle driving records can be quite relevant in assessing a crewmember's potential behavior. An individual's failure to comply with motor vehicle laws -- in particular, the driving while intoxicated statutes -- may indicate certain behavioral traits and may suggest an underlying alcohol/drug abuse problem -- thereby triggering further investigation. The value of motor vehicle records for assisting in the detection of potential problems before a crash or serious incident occurs is readily apparent.

While the creation of such a register would be possible for all modes of transportation, the control and entry of data would require very careful planning, and safeguards would have to be explicitly spelled out by the agency or department responsible for such a register.

SENATOR MIKULSKI: In the case of the VALDEZ, could the Coast Guard have denied a certificate or license based on information that the master had a record of drunk driving?

ANSWER: There is no statute that the Board is aware of that specifically requires the Coast Guard to deny a license to an individual who has been convicted by any court of driving under the influence. However, 46 U.S.C. 7101(c) allows the Secretary of Transportation to issue licenses to applicants found qualified as to age, character, habits of life, experience, professional qualifications and physical fitness.

The Coast Guard requires all applicants seeking an original, renewal or upgrade of an existing license or certificate to answer the following question listed on the application: "Have you been convicted by any court -- including military court -- for other than a minor traffic violation?" If the answer is yes, then it is up to the discretion of the Senior Inspector of Personnel to determine whether or not the individual is issued a license. Failure to complete an application truthfully can lead to its

Emergency Plan

SENATOR MIKULSKI: We now know that vital time was wasted in the hours right after the VALDEZ ran aground. We now know that equipment that was supposed to be standing by was in dry dock. We know that the emergency plan that was supposed to be activated to respond to such a disaster wasn't worth the piece of paper it was written on. How are we to have faith in emergency plans like these? Who was responsible for approving the emergency plan? Why was it never tested with an exercise or a drill? Or, if it was tested why didn't someone realize it didn't work?

ANSWER: As the NTSB presently understands the situation, pending further investigation, the Sate of Alaska's Department of Environment and Conservation was responsible for approving the Alyeska Pipeline Service Company emergency response plan.

The plan was tested by a planned exercise conducted in the spring of 1988. The Coast Guard at Valdez termed the drill very successful. In January 1989 there were two pollution cases at the Alyeska Pipeline Terminal. One was a 1,700 barrel spill from the tank vessel THOMPSON PASS, and the other was a 100 barrel spill from the COVE LEADER. Both spills were relatively slow leaks as the result of cracks in the vessels' hulls. The emergency plan was activated at those times and the spills were cleaned up.

A spill the magnitude of that which occurred with the EXXON VALDEZ, with its extremely rapid loss of oil, apparently was not anticipated.

The Coast Guard

SENATOR MIKULSKI: Where was the Coast Guard in all of this? Supposedly Coast Guard radar tracks the Prince William sound.

ANSWER: The Coast Guard capability for reliable radar tracking of the traffic separation scheme in Prince William Sound only extends about to the south end of the Valdez Arm. The remainder of the system to Cape Hinchinbrook depends on radio communications. The Coast Guard is required by law to track vessels only in the Valdez Narrows. The Coast Guard VTS watchstanders monitor vessels after leaving the Narrows depending on traffic conditions, weather, and the press of other duties in the Center.

SENATOR MIKULSKI: Why didn't the Coast Guard notice that the Valdez was running full speed out of the channel?

ANSWER: The EXXON VALDEZ was increasing speed from the 12 knots to full sea speed of about 15 knots using a computer controlled program that takes about 43 minutes. The VTC watchstander did not monitor the VALDEZ' movement out of the Valdez Arm because there was no other traffic expected for about one hour. The VALDEZ had already advised the VTC watchstander that it was moving into the inbound traffic lane to avoid ice, and that it would advise the VTC when it returned to the outbound traffic lane.

SENATOR MIKULSKI: What is your assessment of the Coast Guard's role?

ANSWER: That is part of our ongoing investigation, and it would be premature to offer any conclusions at this time.

SENATOR MIKULSKI: Could Coast Guard action have prevented the accident?

ANSWER: Coast Guard action may have prevented this accident if the VTC watchstander had closely monitored the VALDEZ as it moved out of the outbound traffic lane and radioed a warning to the ship that it was outside of the Traffic Separation Scheme. There is no requirement that monitoring take place outside the Narrows.

SENATOR MIKULSKI: How would you assess the Coast Guard's response to the spill?

ANSWER: As noted above, this is part of our ongoing investigation, and conclusions would be premature at this time.

SENATOR MIKULSKI: Do you think the federal government should take over the cleanup at this time?

ANSWER: The Federal Government now is very much involved.

Truck Safety -- Hazardous Materials on the Beltway

SENATOR MIKULSKI: Despite local and state efforts in Maryland and Virginia the Capital Beltway is a dangerous roadway. There have been eleven major truck accidents since last August. The danger is even multiplied when these trucks are carrying hazardous and toxic materials. Some would like to restrict the hours for the transport of hazardous materials. Others fear that this would just drive the carriers on to local roads and be even more dangerous. What recommendations can you make to improve Capital Beltway safety?

ANSWER: The Safety Board has not undertaken a study of highway safety on the Capital Beltway specifically, but we have made some recommendations in conjunction with several highway accident investigations that occurred on the Beltway. A synopsis of these recommendations follows.

[CLERK'S NOTE: Due to the number of safety recommendations, this information will be kept by the office of Senator Mikulski.]

SENATOR MIKULSKI: What recommendations can you make to reduce the risk from the transport of hazardous materials on our interstate highways?

ANSWER: Over the years the Safety Board has made numerous recommendations regarding the safe transport of hazardous materials on our highways. A summary of recommendations we have made since 1980 follows.

[CLERK'S NOTE: Due to the number of recommendations regarding the safe transport of hazardous materials, this information will be kept by the office of Senator Mikulski.]

NTSB Budget

SENATOR MIKULSKI: Your FY90 request of $25.967 million represents an increase of just over $600,000 from the FY 89 appropriation and yet you have stated that you will have to reduce FTEs by ten from FY 89 levels. Why?

ANSWER: Between FY 1989 and FY 1990 the Board will incur increased costs totaling $1.338 million. To accommodate these uncontrollable increases, the Board will be forced to reduce its staff. These costs include:

$200,000 -- Inflation
Based on OMB's latest economic assumptions, an inflation rate of 3.6 percent is anticipated for FY 1990. This factor is applied to all non-personnel costs except office space rental.

$151,000 -- Chemical/Toxicological Testing
This additional funding will enable the Board to obtain, from a variety of commercial laboratories, chemical analyses and tests on fuels, lubricants, and other materials in support of Safety Board investigations. Also, this funding would cover costs associated with: (1) toxicological testing which was previously provided by FAA/CAMI in connection with fatal aviation accidents; (2) expanded substance abuse testing of crewmembers, ATC personnel, and maintenance and ground service personnel in nonfatal aviation accidents and incidents; and (3) substance abuse testing in fatal and non-fatal accident investigations in other transportation modes.

$23,000 -- Annual Medical Examinations/Drug Program
Safety Board accident investigations are conducted under strenuous conditions for long periods of time in sometimes extreme climate conditions, and in remote and/or hostile environments. It is, therefore, imperative that Board employees who are involved in on-scene accident investigations be in excellent health, both physically and mentally.

In addition, drug usage by Safety Board employees could preclude a systematic check of minute safety details in an investigation and, therefore, result in missed information which could result in the Board arriving at the wrong conclusion and, consequently, in not issuing appropriate safety recommendations. This could result in serious damage to the Board's credibility with the public, the transportation industry, as well as other Government agencies and could severely undermine the Board's ability to promote transportation safety through effective, efficient accident investigations and safety recommendations.

Executive Order 12564 requires each Federal agency covered by the Order to have a Drug-Free Federal Workplace Plan which includes drug testing. Section 3(a) states that the head of each Executive agency shall establish a program to test for the use of illegal drugs by employees in sensitive positions. Section 3(b) also requires that each agency provide for "voluntary" testing.

Accordingly, as part of a comprehensive health and safety program, the Safety Board is instituting a program whereby all its employees who participate in accident investigations will be

ANSWER: In anticipation of the funding levels proposed by OMB, the Safety Board implemented a hiring freeze to allow attrition to reduce our staff down to the 314 level prior to the beginning of FY 1990. Although expensive reductions in force are avoided, this policy does not allow the Board to choose which positions will be eliminated. Since many of the Board's specialties are staffed by only one to three people, a loss of even one person in many specialties means a loss of 33 to 50 percent of our staff in that specialty. For example, the Board recently lost one of its two Digital Flight Data Recorder (DFDR) specialists.

In most cases it is impossible for other agencies to fill these gaps. Accident investigations should be performed by an organization independent of the modal administrations. It was for this purpose that the Safety Board was created. Perhaps an independent body such as the General Accounting Office could do some oversight studies of the DOT but they clearly do not have the Board's technical transportation expertise.

Therefore, in order to accomplish our investigative mandate, our employees must work more overtime and must be on call more often to respond to future accidents. Where no backup personnel exist, our employees must be available 24 hours a day, seven days a week. What is most disturbing is that this environment encourages our employees to move to other agencies where the work pressures are not as great and, in many cases, where they can earn higher pay. This trend is very disturbing.

Below are examples of the numbers of staff in the various specialties and in the various modes of transportation.

Staffing Depth in Various Specialties

MAJOR INVESTIGATIONS:	Filled
AVIATION	
Investigators-in-Charge	5
Airworthiness	1
Air Traffic Control	4
Aviation Engineering Support	3
Avionics	1
Cockpit Voice Recorder	1
Flight Data Recorder	2
Helicopters	1
Operations	3
Performance	2
Power Plants	2
Structures	1
Systems	3
	29
RAILROAD	
Investigators-in-Charge	3
Rail Technical Support	3
	6
HIGHWAY	
Investigators-in-Charge	4
Highway Technical Support	4

MARINE	
Investigators-in-Charge	8
Marine Technical Support	2
	10
PIPELINE	
Investigators-in-Charge	1
HAZ MAT	
Investigators-in-Charge	2
X-MODAL	
Human Performance	8
Metallurgy/Matrls. Anal.	4
National Resource Spec.	1
Survival	9
Technical Writers	2
Weather	2
	26
TOTAL, Major Inv.	82

FIELD INVESTIGATIONS:	AVIATION Filled	RAILROAD Filled	HIGHWAY Filled
Headquarters	2		
Anchorage	3		
Atlanta	4	2	2
Chicago	4	2	2
Denver	4	1	2
Fort Worth	4	2	2
Kansas City	3		2
Los Angeles	5	2	2
Miami	4		
New York	4	1	2
Seattle	2		2
TOTAL, Field Inv.	39	10	16

QUESTIONS SUBMITTED BY SENATOR D'AMATO

Alaska Oil Spill

SENATOR D'AMATO: What areas will NTSB investigators look into with respect to the EXXON VALDEZ tanker oil spill? How soon will hearings be held? How soon would a report become available?

ANSWER: The NTSB investigation will consider, as a minimum, the following issues:

-- The actions of the master and third mate and others of the navigation watch that led to the grounding;

-- Whether all navigation equipment, including the vessel's steering system, was operating satisfactorily;

-- Human performance factors, such as the mental and physical condition of those persons on the navigation watch, particularly the master and third master;

-- Adequacy of vessel manning to conduct the cargo operations in port and still have sufficient numbers of rested personnel to station a navigation watch to take the vessel to sea;

-- The role of the Valdez Vessel Traffic Service, including such factors as whether the radar and other tracking equipment was adequate and operating satisfactorily, whether the facility was adequately manned, and whether proper tracking and/or monitoring procedures were being followed.

Additional safety issues may be identified during the investigation.

A public hearing will be held May 16 - 19, 1989 in Anchorage, Alaska.

The report should be available in approximately nine months.

SENATOR D'AMATO: I understand that NTSB may investigate the role of the Coast Guard vessel tracking service in failing to track the EXXON tanker once it departed from the shipping lanes through Prince William Sound. Will you look into whether the Coast Guard's VTS radar range is adequate? Whether the VTS office staffing is adequate?

ANSWER: Yes. We are investigating all aspects of the VTS system.

SENATOR D'AMATO: Will NTSB make recommendations about whether the VTS function needs to be improved in order to cover tanker traffic in this environmentally sensitive area?

ANSWER: Recommendations will be made on any issue we believe is important to enhance navigational safety. It is too soon to know at this point whether or not recommendations are necessary or what they might contain.

Pan Am Flight 103

SENATOR D'AMATO: What is the status of your investigation of the December 21, 1988 bombing of Pan Am flight 103?

ANSWER: The Safety Board provided an Accredited Representative to oversee the United States technical experts who provided assistance to the British authorities, the Air Accidents Investigation Branch which was conducting the investigation. Experts were provided by the NTSB and the following organizations: the Federal Aviation Administration; Pan American World Airways; the Boeing Airplane Company; Pratt & Whitney, a division of United Technologies; and the Air Line Pilots Association.

The investigation was carried out in accordance with the provisions of Annex 13 of the International Civil Aviation Organization (ICAO), to which both the United States and the United Kingdom are signatories. The NTSB provides assistance to foreign governments in accordance with the ICAO treaty, under the supervision of the United States Department of State, which delegates to the NTSB the aviation accident investigation authorities for the United States.

The Air Accidents Investigation Branch gathered evidence, within days of the accident, conclusively indicating that the cause of the Pan Am flight 103 crash was an explosive device that had been placed aboard the flight. As a result, the NTSB's role in the investigation changed from assisting the British Government in determining the probable cause of the accident, to that of providing support to examine technical aspects of the wreckage.

At the present time, this process has been concluded and the role of the NTSB is essentially completed. The Safety Board is prepared, of course, to provide assistance to the British Government should further questions arise.

The investigation of the accident is now a criminal investigation, with the focus on determining the origins of the explosive device. The NTSB does not have a role in this investigation and therefore, cannot comment on this aspect of the investigation.

SENATOR D'AMATO: Do you have adequate funds to carry out this investigation?

ANSWER: Yes, in view of the fact that our role was limited to what was noted above. Had the plane crashed into international waters and the NTSB been the lead agency, we would have had a significant problem in terms of funds and resources.

SENATOR D'AMATO: When do you expect the investigation to be complete?

ANSWER: That is a matter in the hands of the British Government.

QUESTIONS SUBMITTED BY SENATOR GRASSLEY

SENATOR GRASSLEY: The National Highway Traffic Safety Administration (NHTSA) submitted a report to Congress on January 13, 1989 on the effects of the 65 mph speed limit during 1987. One of NHTSA's conclusions indicated it was too early to draw any definite conclusion as to the long-term effect of the increased speed limit on highway fatalities. NHTSA also stated as part of the 65 mph study a belief that the setting of speed limits is a matter best handled by individual states. Does the National Transportation Safety Board support this position?

ANSWER: The Safety Board has not taken a position on this matter. Any information we have on the subject has been obtained from the National Highway Traffic Safety Administration. Our accident investigation experience has not shed any additional light on this issue.

SENATOR GRASSLEY: The Surface Transportation and Uniform Relocation Assistance Act (STURAA) of 1987 allowed states to raise the speed limit up to 65 mph on interstate highways outside of urbanized areas of 50,000 population or more. Iowa raised the speed limit on 664 miles of our interstate system. Using the urbanized area definition to determine the setting of speed limits does not take into consideration such factors as highway design and traffic patterns. If the Federal Government is going to continue to regulate national speed limits, is it likely that clear criteria will be established for determining these limits? Criteria using the basis of engineering design factors, traffic density and flow, congestion, visibility standards and access limitations.

ANSWER: At the time Congress was deliberating whether to permit an increase in the national maximum speed limit, then-Secretary of Transportation Elizabeth Dole stated that "DOT cannot support any legislation until there are valid criteria for selecting road segments where the limit could be revised without adversely affecting safety." In order to develop such criteria, the Institute of Transportation Engineers established a 55 MPH Task Force, using the knowledge and experience of the Task Force members who represented the transportation community, highway interests, and safety groups. The "Recommended Guidelines" covered five areas that should be addressed in considering any increase in the speed limit:

- Freeway segments only, with full control of access and complying with freeway design standards;
- Roads with traffic density less than 30 passenger car equivalents per mile per lane in the peak hour;
- A minimum segment length of ten miles;
- Performance of an engineering and traffic study, covering nine specific issues;
- Followup monitoring study and analysis.

Use of these types of guidelines could help ensure that levels of safety are not substantially deteriorated by raising the 55 mph speed limit outside of urban areas.

SUBCOMMITTEE RECESS

Senator LAUTENBERG. I thank you very much. We're going to have to adjourn the subcommittee now. We will call the Federal Highway Administration here at 1 o'clock. We thank you.

Mr. KOLSTAD. Thank you very much, Senator.

[Whereupon, at 11:11 a.m., Thursday, April 6, the subcommittee was recessed, to reconvene at 1 p.m., the same day.]

(AFTERNOON SESSION, 1:17 P.M., THURSDAY, APRIL 6, 1989)

DEPARTMENT OF TRANSPORTATION

FEDERAL HIGHWAY ADMINISTRATION

STATEMENT OF RICHARD D. MORGAN, EXECUTIVE DIRECTOR

OPENING REMARKS

Senator LAUTENBERG. We are going to reconvene the subcommittee hearing.

And we will now hear from the first half behind the second half of the witness list. I am most appreciative of the Federal Highway Administration's flexibility and willingness to reverse the order.

We will have questions for you from people who aren't here at the moment. There is a lot of interest, obviously, in the highway budget and the highway appropriations. But because of this changing around of the schedule, we have lost some of the participation, but they have asked me to keep the record open. And I will ask our witness to respond to questions that are submitted in writing.

We are going to hear testimony now on the 1990 budget for the Federal Highway Administration. It includes $32.2 million in new budget authority and limitations on obligations of $11.38 billion. These are reductions of $134 million and $689.4 million, respectively, from 1989 funding levels.

BUDGET HIGHLIGHTS

I want to mention a few of the highlights from the 1990 budget for Federal aid to highways that include an obligation limitation of $11.310 billion, a reduction of $690 million from the 1989 obligation limit of $12 billion.

Additionally, the 1990 budget proposes that the budget authority totaling $1.05 billion be exempt from obligation limitation. That would be a reduction of $439 million from the 1989 exemption of $1.494 billion.

Additionally, substitute projects for transit programs would be included within the highway authorization. Compared to the 1989 program, then, the 1990 Federal-aid budget proposal effectively represents a reduction of more than $1.1 billion from the 1989 program currently in place.

The 1990 budget proposes an increase of $10.9 million in the limitation on general operating expenses from $217.4 million to $228.3 million. This account largely controls most of FHWA's administrative expenses and no-year contract programs.

The 1990 budget also proposes a continuation of the Motor Carrier Safety Assistance Program at the level of $60 million, the same as in 1989. Now, this program is a Federal-State cooperative effort

to improve motor carrier safety. It is a very popular program. People want to see improvements there.

The 1990 Federal motor carrier safety operation budget request is for $32.2 million. That's up $5.2 million from the 1989 level of $27 million. Included in this proposal would be an additional 150 safety inspectors.

Highway-related safety grants are proposed for a continuation at a $10 million level in 1990.

The largest activity funded in the FHWA is the Federal-Aid Highway System. This comprises a major component of the Nation's transportation network.

The budget proposes to reduce expenditures for highways at a time when other transportation modes are also under severe stress, including the overcrowding of existing aviation facilities, the proposal to terminate Amtrak funding in 1990, and the proposal to eliminate almost $2 billion in transit funding.

BALANCED TRANSPORTATION SYSTEM

In the past, this subcommittee has worked for a balanced transportation system. We intend to continue to resist proposals which favor one mode over another or which decimate one mode in order to get the resources for others. That is kind of a Machiavellian scheme, as far as I'm concerned, to try to eliminate important programs that don't meet the administration's agenda. At today's hearing we are going to review some of the overall highway needs and the adequacy of the 1990 funding proposal.

The subcommittee is also very committed to safety across all modes of transportation. Motor carrier safety will again be covered in detail today as the subcommittee continues to push and encourage the FHWA to step up its efforts in this area. There are still too many motor carrier accidents and the Federal Highway Administration must continue to improve its effort to reduce accidents and fatalities, and not just focus its efforts on inspections and other workload indicators.

MOTOR CARRIER ACCESS

We are also going to review the issue of motor carrier access. The definitions of terminal and reasonable access have significant safety aspects, and the committee would hope that the FHWA will work with the States to define these after all parties have had an opportunity to review the Transportation Research Board analysis.

HIGHWAY CONGESTION

FHWA also plays a major role in addressing highway congestion issues. We are going to review the 1990 budget to see what congestion initiatives it contains to deal with congestion and the related problems of environmental air pollution and lost productivity.

Obviously, there are a number of issues which we are not going to be able to get to today for which we, as I told you earlier, will submit a number of record questions. And we would like a prompt response on them.

First, we are going to hear from Mr. Richard D. Morgan, FHWA's Executive Director. We welcome you before the subcommittee, and once again, we have your full statement which we will include for the record. But if you can summarize your statement, it would be appreciated.

OPENING REMARKS OF MR. MORGAN

Mr. MORGAN. Thank you, Mr. Chairman. I will summarize my statement with the understanding the full statement will appear in the record. And I appreciate the opportunity to present the 1990 budget estimate of the Federal Highway Administration to you today.

The budget was developed in the context of providing a highway program for 1990 based on a program level which addresses the critical construction and rehabilitation needs of our Nation's highway infrastructure, but will still achieve deficit targets consistent with Gramm-Rudman-Hollings.

FHWA PROGRAM HIGHLIGHTS

Before the particulars of the 1990 budget are discussed, I would like to present a few highlights of the program over the last couple of years.

The total obligations for our program in 1988 were about $13.3 billion and are anticipated to be about $13.7 billion in 1989.

Over the past 2 years, 343 miles of the interstate system have been opened to traffic and another 495 miles are under construction. That is over 42,000 miles currently open. Only about 300 miles remain to go under construction.

Our Interstate 4R Program is moving well. Annual obligations have been about $2.3 billion over the last 2 years.

Our Highway Safety Program obligations from our earmarked safety construction funds were $300 million estimated for 1989 with an additional $1.7 billion for 1989 from other highway authorizations.

Under the Motor Carrier Safety Grant Program for 1988, the States conducted approximately 1,200,000 vehicle inspections resulting in 471,000 vehicles and 83,000 drivers being put out of service for safety violations.

ELEMENTS OF FISCAL YEAR 1990 BUDGET

The key elements of the 1990 budget include new funding requests for Federal-aid highways, motor carrier safety grants, motor carrier safety operations, and highway-related safety grants. The 1990 budget authority for these four programs totals $13.953 billion. The projected program level for 1990 for the same programs is about $12.5 billion. I will provide a brief overview of each program for which funding is proposed.

As you mentioned, Mr. Chairman, for 1990 the obligation limitation for Federal-aid highways is $11.31 billion. Now, this level of obligation is based on our deficit neutral policy of keeping total obligations for fiscal years 1987 through 1991 equal to total tax receipts over the same period.

Programs which we propose to exempt from this limitation are emergency relief, minimum allocation, and Alaska highway. Estimated obligations for these exempt programs total $1.055 billion.

GENERAL OPERATING EXPENSES

The proposed operating level for general operating expenses for fiscal year 1990 is $228.246 million which is about $11 million over the amount provided in 1989.

Included in this general operating expense estimate is a proposal for a highway use tax evasion project which is a demonstration project in two States to gain more information on the source of tax evasion from the highway trust fund and to strengthen efforts to recoup these losses. This would be a coordinated effort between the Federal Highway Administration, the Internal Revenue Service, and the two States involved in the pilot project.

In the research, development, and technology area, we are placing greater emphasis on congestion reduction, needs of the older driver, and detecting and controlling underwater scour at highway bridge piers in rivers and streams, which seems very timely.

MOTOR CARRIER SAFETY GRANTS

We propose an obligation limitation for fiscal year 1990 of $60 million for motor carrier safety assistance, which is the same as the authorized amount.

For our operating expenses in our motor carrier program, we request $32.2 million, which is an increase of $5.2 million over 1989. The majority of this increase is to fund an additional 150 safety inspectors along with 35 support staff, for a total of 185 new full-time permanent positions. The new inspectors will allow us to double, up to 60,000 a year, the number of onsite carrier reviews conducted at carriers' offices to determine their compliance with the safety regulations and to issue safety ratings.

PREPARED STATEMENT

Thank you again for giving me this opportunity to describe the Federal Highway Administration's 1990 budget. I would be pleased to answer any questions you may have concerning it.

[The statement follows:]

STATEMENT OF RICHARD D. MORGAN

Good morning, Mr. Chairman, Members of the Committee: Thank you for providing me this opportunity to present the fiscal year 1990 Budget Estimate of the Federal Highway Administration.

OVERVIEW

The budget before you was developed in the context of providing a highway program in fiscal year 1990 which is based on: (1) a funding level which addresses the most critical construction and rehabilitation needs of our nation's highway infrastructure; and (2) a program level which will achieve deficit targets consistent with the Gramm-Rudman-Hollings target for fiscal year 1990.

Consistent with the Administration's deficit reduction program, the Federal Highway Administration's budget request is based on a Deficit Neutral Policy. This policy—where total tax receipts for the fiscal years 1987 through 1991 ensures that highway programs financed from the Highway Trust Fund would neither increase nor decrease the 1990 Federal deficit.

Our nation's highway system is, by far, the best in the world. However, age and increasing traffic volumes are continuing to take their toll.

ACCOMPLISHMENTS

Before the particulars of the 1990 Budget are discussed, I would like to take this opportunity to provide some of the program highlights over the last couple of years.

Obligations for FHWA programs in fiscal year 1988 were $13.3 billion; in fiscal year 1989 obligations are anticipated to be $13.7 billion

Interstate System progress is something that I am particularly proud of, a total of 343 miles have been opened to traffic over the past 2 years and with another 495 miles currently under construction, there remain approximately 300 more miles to be completed. As of December 31, 1988, 42,004 miles were open to traffic.

Interstate 4R, which concentrates on the resurfacing, restoration, rehabilitation and reconstruction of the highway infrastructure, continues to receive high priority. For fiscal year 1988 $2.3 billion was obligated for such activities. Anticipated fiscal year 1989 obligations also remain at the $2.3 billion figure.

Bridge Replacement and Restoration, which has received widespread public attention, is another priority of this administration. Over the past 2 years $2.9 billion has been directed towards this national priority.

Highway Safety obligations from earmarked safety construction funds totaled $257 million in fiscal year 1988 and an estimated $300 million in 1989. Obligations for safety activities within the Interstate category for fiscal year 1988 amounted to $242.5 million; for fiscal year 1989 we expect to double that amount to $485 million. In the non-interstate category, $1.097 billion was obligated in fiscal year 1988 for safety funds with $1.2 billion estimated for fiscal year 1989.

Motor Carrier Safety, the subject of six public laws enacted since 1980, is a high-priority program that has received public attention. About 185,000 for-hire and private truck and bus companies and some 5 million drivers are under FHWA safety jurisdiction.

KEY ELEMENTS OF THE FISCAL YEAR 1990 BUDGET

The Federal Highway Administration Budget for fiscal year 1990 includes new funding requests for Federal Aid Highways, Motor Carrier Safety Grants, Motor Carrier Safety and Highway Related Safety Grants. Fiscal year 1990 budget authority for these four programs totals $13.953 billion; the projected level in fiscal year 1990 for the same programs is $12.489 billion.

Without further delay, I would like to provide an overview of each program for which funding is proposed in our fiscal year 1990 budget.

FEDERAL AID HIGHWAYS

By far the largest program, the Federal Aid Highway account is the financial backbone of the nation's highway system and assists states and localities in building and rehabilitating their highway and roadway systems.

For fiscal year 1990, FHWA proposes a limitation on Federal Aid obligations of $11.310 billion. This level of obligation is based on our deficit neutral policy of keeping total obligations for fiscal years 1987–91 equal to total tax receipts over the same period. Programs which we propose to be exempt from this limitation are: Emergency Relief, Minimum Allocation and Alaska Highway. Estimated obligations for these programs total $1.055 billion.

We request a $13.660 billion liquidating cash appropriation for fiscal year 1990; this amount is necessary to assure sufficient cash to reimburse the states for this program.

GENERAL OPERATING EXPENSES

Within the Federal Aid Highways program, Limitation on General Operating Expenses controls spending for most of FHWA's administrative activities such as salaries, travel, equipment purchases, and the various no-year contract programs. The proposed funding for General Operating Expenses in fiscal year 1990 is $228.246 million, which is about $11 million over the amount provided in fiscal year 1989.

Approximately one-half of the $11 million increase over the fiscal year 1989 level is attributable to unavoidable administrative costs such as salaries and benefits, inflation and working capital charges. The remaining increases are associated primarily with research and development, and the Highway Use Tax Evasion Project which is a demonstration project in two states to gain more information on the source of tax evasion from the Highway Trust Fund and to strengthen efforts to

recoup these losses. This would be a coordinated effort among FHWA, the Internal Revenue Service and the two states involved in this pilot project.

In the research, development and technology area, we are placing greater emphasis on congestion reduction, needs of the older driver and controlling underwater scour at highway bridge piers in rivers and streams.

In the congestion reduction area, we are currently conducting research related to the prevention of gridlock. This research is expected to provide more efficient and more easily understood freeway corridor traffic management strategies by placing greater emphasis on (1) freeway incidence detection and management, (2) freeway ramp metering and diversion of traffic to alternative routes and (3) integrating and coordinating the operations of freeways with adjacent computerized traffic signal systems.

MOTOR CARRIER SAFETY GRANTS

Under the Motor Carrier Safety Assistance Program (MCSAP), established by the Surface Transportation Assistance Act of 1982, FHWA provides grants and technical assistance to the states to conduct roadside inspections of commercial vehicles and their drivers. Since the first funding in fiscal year 1984 and through 1989 almost $200 million will be obligated for this program. In fiscal year 1988, the states conducted nearly one and a quarter million vehicle inspections resulting in 471,000 vehicles and 83,000 drivers being put out of service for safety violations.

FHWA proposes an obligation limitation in fiscal year 1990 of $60 million, for MCSAP, the same amount authorized for this program, along with a liquidating cash request of $52 million.

MOTOR CARRIER SAFETY

This appropriation provides funding for the expenses of administering and implementing rules and regulations involving the motor carrier industry, including the commercial driver's license program established by the Commercial Motor Vehicle Safety Act of 1986.

For fiscal year 1990, FHWA requests a $32.2 million appropriation for Motor Carrier Safety Operations, which is an increase of $5.2 million over the 1989 level. The majority of this increase is to fund an additional 150 safety inspectors along with 35 support staff for a total of 185 new full time permanent positions. The new inspectors will allow us to double to 60,000 a year the number of on-site carrier reviews conducted at carriers' offices to determine their compliance with the safety regulations and to issue safety ratings. This increase in the number of inspectors is vital if FHWA is to get a handle on the backlog of unrated motor carriers with a reasonable time frame.

HIGHWAY RELATED SAFETY GRANTS

The Highway Related Safety Grants program provides grants to states for programs designed to improve highway safety at the state and local level. For fiscal year 1990, FHWA is proposing a $10 million obligation limitation, equal to new fiscal year 1990 authority. To meet new and prior obligations, a $10 million liquidating cash appropriation is requested.

RIGHT OF WAY REVOLVING FUND

The program objective of the Right of Way Revolving fund is to allow states to acquire highway right of way prior to construction by providing interest free loans to states. To ensure continued prudent management of this Federal program, FHWA proposes a limitation on direct loans of $47.850 million.

CONCLUSION

Thank you again for giving me this opportunity to describe the Federal Highway Administration's 1990 Budget. As always, I would be pleased to answer any questions the Committee may have concerning this document.

HIGHWAY NEEDS REPORT

Senator LAUTENBERG. Thank you very much, Mr. Morgan. I appreciate the summary. You did hit the highlights of your depart-

ment's concerns, and I just want to review some of those with you now.

The department just released its highway needs report. In summary, what does it say about the overall condition of our Federal-aid highways?

Mr. MORGAN. Overall conditions—pavement conditions are slightly improving since the 1982 act was passed with the gas tax increase and a higher program level. It has gone up in some of the categories, but it has also gone down in others. For instance, there is less pavement right now in poor condition that there was in the last report. However, the amount of pavement which would be in good to excellent condition is declining on all systems.

Senator LAUTENBERG. Your initial response was that it is improving, but if we lose from the top category, the good or excellent, then is it fair to say that overall that there are fewer good, fully established highway beds than there ought to be? Do we need more work to be done there? Do we have a lot of rehabilitation?

Mr. MORGAN. Yes, sir; we are not gaining very fast, Mr. Chairman. As they say, when you are slipping from the excellent to good down to the average, and even bringing it up, we are getting more average. So, more work needs to be done. On the urban-suburban congestion issue, our report indicates that is increasing materially, and that's a problem that has to be faced.

MAINTAINING CURRENT LEVELS

Senator LAUTENBERG. What do you think it will cost to maintain the highways at their current condition levels?

Mr. MORGAN. We estimate it will cost between $25 and $28 billion a year as expenditures from all levels of government on all but local roads to maintain the 1985 operating conditions.

Senator LAUTENBERG. Well, if it is going to cost that much to maintain them, then it does challenge the earlier conclusion that we are gaining on it because the gain is not perceptible, as I see it, if you have to spend $25 to $28 billion a year. That's more than the whole program has got to be invested in it.

Taking into consideration the general population growth, the increased highway use, and other factors, how much might it cost in the future to provide the same level of user satisfaction as now exists? Do we cover it with that $25 to $28 billion?

NEW CAPACITY NEEDS

Mr. MORGAN. No, sir; the $25 to $28 billion really doesn't get at some of the new capacity needs which we see coming on. It covers certain new capacity needs which are, let's say, readily buildable, simple expansion. But in some of our major urbanized areas, there's new capacity needs which we haven't even estimated because it's questionable whether they can be built.

Senator LAUTENBERG. Not whether they can physically be built, but whether they can financially be built.

Mr. MORGAN. Yes, sir.

Senator LAUTENBERG. That doesn't suggest in any way that the need isn't real or serious or urgent.

Mr. MORGAN. Yes, sir.

FEDERAL SHARE OF HIGHWAY SPENDING

Senator LAUTENBERG. What has been typically the Federal share of total costs for highways?

Mr. MORGAN. The Federal share of total capital is probably around 40 percent overall. On the interstate system, it's 78 percent. On the primary system, it's 46 percent; secondary system, 43 percent; urban system, 53 percent.

Senator LAUTENBERG. So, that might mean a $15 billion share for the Federal Government to meet the needs that you suggested before. We are going to be substantially short of that objective by $2 billion to maybe $4 billion in real terms.

Mr. MORGAN. In the near term.

BRIDGE CONDITIONS

Senator LAUTENBERG. Bridge conditions. I mean, we have seen horrible evidence of deteriorated bridge structures over the last few years and one very recently.

Have bridge conditions worsened nationally since the passage of the STAA in 1982?

Mr. MORGAN. It seems like we are just about staying even with the bridge program, Mr. Chairman. We are not gaining.

Senator LAUTENBERG. Does that mean that a certain number of them are going to come down each year?

Mr. MORGAN. I would hope not.

Senator LAUTENBERG. Well, I don't know what you mean, Mr. Morgan, when you say staying even.

BRIDGE COSTS

Mr. MORGAN. Well, if you are talking about overall bridge needs, our last report to Congress had—the cost to cure the deficient bridges both on and off the Federal-aid system of a little over $50 billion. That is backlog needs only. Our most recent report to Congress, which just went up within the last month, shows about the same number. It varies between system.

Senator LAUTENBERG. What was the number that you just used?

Mr. MORGAN. It was $51.4 in our 1987 report and $50.7 in our 1988 report.

Senator LAUTENBERG. I am curious about whether that is an expense target that is necessary if we brought them all up to standard right now or is that an annual expenditure?

Mr. MORGAN. That's total expenditure, our estimate to the year 2005.

Senator LAUTENBERG. So, if we spent $50 billion over the next 20 years—15 to 16 years, something like that, that would get our bridges all up to the standard that they ought to be in.

ACCRUING BRIDGE NEEDS

Mr. MORGAN. Well, I would like to say yes, but I'm afraid not, Mr. Chairman, because you have accruing needs that aren't included. What we are talking is backlog as of 1987, and the accruing needs run the numbers considerably higher predicting which bridges will become deficient over that same period.

Senator LAUTENBERG. There are some 578,000 bridges in inventory nationally. It is my understanding that 41 percent of those are either structurally deficient or functionally obsolete. Are my assumptions correct?

Mr. MORGAN. Yes, sir.

Senator LAUTENBERG. What is the estimated cost to correct these deficiencies? These are serious problems. Am I correct?

Mr. MORGAN. The functionally obsolete are generally not structurally deficient. There's nothing the matter with them structurally. It's not a load issue generally. Those are geometry, deck width, approach geometry, some of the safety features. That is the total cost that I mentioned of backlog needs. The total of both, the structurally deficient and functionally obsolete, is about $50.7 billion.

STATE OF NEW JERSEY BRIDGES

Senator LAUTENBERG. Do you have an estimate of the overall condition of the New Jersey highway bridge condition?

Mr. MORGAN. Yes, sir; of the 5,997 bridges inventoried in New Jersey, about 35 percent are deficient.

Senator LAUTENBERG. Are there grades of deficiency?

Mr. MORGAN. Yes, sir.

Senator LAUTENBERG. What is the standard?

Mr. MORGAN. The 35-percent number I just gave you has to do with bridges that would be eligible for Federal bridge replacement funds, which means a sufficiency rating of 50 out of 100 if they are structurally deficient or 80 out of 100 if they are functionally obsolete.

Now, many functionally obsolete bridges probably will never be fixed. They don't handle that much traffic. They are just there, and they are probably serving the purpose that they're intended to serve.

NEW JERSEY DEFICIENT OR OBSOLETE BRIDGES

Senator LAUTENBERG. But if we take the 35 percent of almost 6,000, you have 2,000. Are they dangerous? Are they just rims and tires?

Mr. MORGAN. Of that number, 23 percent in New Jersey are structurally deficient and 12 percent are functionally obsolete.

Senator LAUTENBERG. So, the 23 percent reduces that. About 1,300 or 1,400 bridges. Is there imminent danger of either inability to use, collapse, or anything of that nature?

Mr. MORGAN. Not that I'm aware of, Mr. Chairman. If these bridges, even though they are structurally deficient, are properly posted and watched, they are not going to collapse.

Senator LAUTENBERG. So, what has to happen to them? It is just uncomfortable pavement on them?

Mr. MORGAN. No, sir; those have structural deficiencies, and depending what it is, that can be anything from a bad deck, a rough or a weak deck, to substructure problems. And they have to be watched and they should be either repaired or replaced.

Senator LAUTENBERG. Do you then send out a warning or a requirement that the load factors on these bridges be reduced?

Mr. MORGAN. Yes, sir; when the state inspects the bridges, one of the things they have to determine or will determine as part of the inspection is whether load restriction should be put on the bridge. And if it is, they put it on.

And the big push that we are in right now with the States is followup to the inspection to see if there are structural deficiencies, if they will be taken care of. That they be load posted or some steps taken rather than the deficiency just hanging out there.

Senator LAUTENBERG. So, you don't declare any of these bridges that we are discussing as unsafe.

Mr. MORGAN. No, sir.

HATCHIE RIVER BRIDGE COLLAPSE

Senator LAUTENBERG. Was there any indication that the bridge in Tennessee had reached an unsafe stage? Was that a bridge that was suspect in any way?

Mr. MORGAN. I have not seen the bridge inspection report on that, Mr. Chairman. From what I understand, it was inspected last in September 1987, and that there was some scour noted. But I am not prepared to say here today whether it was of sufficient magnitude that it should have been a warning. I just don't know at this point. We have just had some people back from there, and we will know more about it within the next week or so.

Senator LAUTENBERG. In your inspections, you are not just looking at pavement and superstructure, are you? Do you look at the water erosion problem?

Mr. MORGAN. Yes, sir; of course, the States generally do the inspections, and our requirements are that they have some sort of special inventory of scour-susceptible bridges and that they do underwater inspections of those bridges on a periodic basis.

Senator LAUTENBERG. Of the roughly 2,000 bridges in New Jersey that are estimated to have a remaining useful life of less than 3 years, what might be a percentage of those 1,500 to 2,000—we identified them as either structurally deficient or functionally obsolete. What percent of those bridges might have less than a 3-year useful life?

Mr. MORGAN. Mr. Chairman, New Jersey reported in the national bridge inventory that of the 2,100 bridges reported as deficient 197 or 9.4 percent have a remaining live of less than 3 years.

Senator LAUTENBERG. Do you have any idea how many new bridges New Jersey is going to be able to fund in 1990?

Mr. MORGAN. Sir, New Jersey should be able to fund 75 bridge projects including replacement, rehabilitation, and new structures.

FUTURE HIGHWAY PROGRAM

Senator LAUTENBERG. I would ask at this point if my colleague from Iowa, Senator Grassley, has any questions for Mr. Morgan.

Senator GRASSLEY. Yes; and I don't think they will take so long.

I have a short prelude to my questions if you will bear with me, and that is the fact that we are all very much aware of the activity under way in our States relating to the next highway/transit reauthorization bill. Our State transportation agencies, our highway and transit associations, and our other interested and affected

groups are evaluating and, of course, reevaluating our transportation network and the proper responsibility of the State, the State versus the locals and the State and locals versus the Federal Government.

The 1991 reauthorization bill is of special significance because we will be establishing a post-interstate construction program. The interstate system is essentially in place and we need to look now to how we manage our transportation system in the future. Three topics are frequently discussed as we look forward to this reauthorization and then how it looks forward to the next 30 years.

The first is the condition of our transportation infrastructure, and this discussion of the collapse of the bridge in Tennessee is just the most recent example of the failure to maintain our basic transportation system. And I suppose you can make a case that that is because of the foundation structure eroding, that that may not be entirely that it was weak, but it brings to mind a lot of bridges that have gone down lately. That is the first thing that we are concerned about as we look ahead to the 1991 bill, just basic infrastructure.

URBAN CONGESTION

The second major topic deals with the increase of urban congestion. The major growth areas of the country have serious transportation problems.

HIGHWAY FINANCING

The third topic deals with finances and, of course, the cry—sometimes legitimate, sometimes maybe just people who want to spend more money, but we never have enough money to go around for what needs seem to be out there.

I am concerned that the debate over our future transportation will center on whether we should use our limited Federal funding for easy urban congestion problems or preserving the major highway system which provides the bulk of our intercity system.

So, question. And admittedly, these might be considered broad questions for just the oversight work we are doing, but I think we have to know where you are coming from as we appropriate for the next year.

How does the Federal Highway Administration view our ability to deal with the concerns of urban congestion and preservation, and how can these needs be balanced when administering the Federal-Aid Highway Program and with the other problems I suggested?

HIGHWAY PROGRAM STRUCTURE

Mr. MORGAN. Mr. Grassley, you have hit on one of the big debates that I am sure is going to take place and have taken place within the Federal Highway Administration and the Department as to how broad a set of categories we should propose for the post-1991 bill or should we go with narrow categories which aim smaller pots of money at specific problems. Frankly, our inclination is to go for more State flexibility with a larger amount of money in that

program for the States and locals to decide whether preservation is the most important item or urban congestion.

FUNDING LEVELS

Now, we are also talking an increase in funding level. We are talking above what we have for this period we're in now where the deficit is a major problem.

And we also see stepping up our research, science and technology efforts in the urbanized and suburban areas because before we can go for major new capacity improvements, I think it is essential that we maximize what we have out there.

Now, I don't believe we can get great increases in capacity with sophisticated technology, but we can get some increases in capacity. We do have the technology where drivers can know where incidents are and avoid them. And 60 percent of our delays on our urban freeway systems are due to incidents, from flat tires to major spills of hazardous materials. And if we can get around those problems or avoid them, we can increase capacity.

SUMMARY OF FUTURE PROPOSAL

So, in summation, we're looking for post 1991 for a larger effort on the part of the Federal Highway Administration in cooperation with the States and industry on applying high technology to our highway systems to get the most of them, as well as a rather broadly eligible highway program with State determination on where those funds go for restoration or new capital.

STATE DISCRETION

Senator GRASSLEY. The extent to which you bring up state discretion I think hits a person like me very favorably. Does that imply then that the States will have resources, in other words, maybe more discretion over the amount of money that they raise within their States?

FHWA PERSPECTIVE

Mr. MORGAN. Well, I would say that the Federal pot will be—I can't give you a level. It will really depend, but the States would have more discretion on where to put the money within a certain major Federal system.

Now, the Secretary has announced—and I believe when he testified early before this committee—that he is to develop a national transportation policy. So, I would like to make it abundantly clear what I am talking about is where the Federal Highway staff is, and we will input into the Secretary's national policy, which is vitally needed, and hopefully can come together to attack the problem you mentioned and that the chairman mentioned in his opening remarks.

Senator GRASSLEY. Well, what you just told me is where your agency is coming from.

Mr. MORGAN. Yes, sir.

FUTURES REPORT

Senator GRASSLEY. Now, I want to refer to your agency's future national highway program task force report which was issued—interim report—November 1988 on this program into the 21st century. It proposed—and I quote—"limit Federal involvement of those aspects of the highway program that will be of national interest and will be consistent with the Federal role in meeting national highway objectives." A number of future directions of program alternatives were provided in the same interim report.

I would like to have you identify those aspects of the highway program that you see as in the national interest.

Mr. MORGAN. Well, the elements of the highway system that contribute to the national defense, contribute to interstate commerce that foster economic productivity, international competitiveness, those elements of the program that enhance highway safety both on the highway and with the motor carrier industry. Those are, I think, some of the elements that we look at as a basis for Federal involvement in the highway program and to what systems.

Senator GRASSLEY. Well, is that a list of specific objectives where there is an end to them?

Mr. MORGAN. Yes, sir.

Senator GRASSLEY. I don't expect you to name them all from memory now. But is there like a certain number and those are the things that you want to meet, or can you just go on and on?

Mr. MORGAN. No; I think I ran out of reasons for Federal involvement, Mr. Grassley. But the current Federal aid system is about 850,000 miles. We would look at a much reduced Federal system. It would be probably the interstate system plus some major elements of the primary system where there would be major Federal involvement. And we could look at perhaps the remaining roads which are more of State and local significance and handling them with a different type of program. It could be a tax turnback or a block grant. Those are options I think that will be explored in the Secretary's transportation policy.

FHWA'S REPORT ON FUTURE PROGRAM

Senator GRASSLEY. Now, my last question and still referring to the same report, and that is whether or not your agency has expanded on this report and prepared recommendations for a future highway program. Have you done that yet?

Mr. MORGAN. We have done a piece for the Secretary, Mr. Grassley, yes, sir.

Senator GRASSLEY. And the point is that until he approves that, it is not public.

Mr. MORGAN. Yes, sir.

Senator GRASSLEY. Or is that an internal document that we can see?

Mr. MORGAN. Well, until he approves it, I would not agree to distribute it.

Senator GRASSLEY. OK. Well, I am not sure—I didn't necessarily mean made public, but I mean for the members of us on this committee to see, or would that still be the same embargo?

Mr. MORGAN. I would have no problem. Let me check on it when I go back.

Senator GRASSLEY. Thank you. Thank you, Mr. Chairman.

MOTOR CARRIER SAFETY PROGRAMS

Senator LAUTENBERG. Thank you very much, Senator Grassley.

Mr. Morgan, I want to discuss with you motor carrier safety programs. We do see a 1990 budget that proposes $60 million to continue the MCSAP, I guess is the acronym, program. Last year the committee report said that the purpose of MCSAP is not necessarily to simply increase the number of truck inspections, but to promote enforcement and compliance with safety regulations. That measures how we are doing. Are we seeing a decline in accidents, fatalities, injuries, et cetera?

In terms of program and policy improvements, what has the Federal Highway Administration done during the last year to reevaluate compliance requirements that pertain to the MCSAP inspections?

Mr. MORGAN. Well, several things. We are looking at, as I mentioned in my opening statement, the number of roadside inspections by MCSAP personnel have increased materially to well over a million a year with, of course, many more vehicles put out of service. Now, whether that is an accomplishment is difficult because the aim is not to put them out of service. It's to get them to comply with the safety rules. But regardless, that is increasing.

We have seen—and I am not sure it is a permanent trend, but we have seen a decrease in fata' accident rate involving large combinations, and we have seen a decrease in the fatality rate. It is not as low as it should go. And I hesitate to attribute it entirely to MCSAP. But I think MCSAP overall has been extremely successful just because of the interest it has gotten from both industry and the States and I believe the support it has gotten from industry.

MOTOR CARRIER SAFETY PROGRESS

Senator LAUTENBERG. What do we have to do to improve that record further? You say there is a decline in the number of fatalities, a decline in the rate of accidents. What do we have to do? There are a lot of people out there across the country that read articles in the newspapers, various sections, about the threat of truck accidents, heavy trucks in particular at high speeds. What can we do beyond that which you have already done to improve the results record on motor carrier safety?

Mr. MORGAN. Please let me clarify one point on fatalities, we are seeing a decline in the fatal accident rate—not in the number of fatalities. It is not purely a money problem or a people problem. Of course, continued enforcement has to be there, and perhaps stepped-up enforcement, but that will take place.

And it is an educational problem also, and it may be even a social problem. In the whole highway safety issue, it's not purely a motor carrier problem. There are 46,000 fatalities on our Nation's highways every year.

So, I believe that enforcement, education, cooperation from the industry, continued awareness—it's not a short-term problem, Mr. Chairman. And I think we both know that.

STATISTICAL DATA ON MOTOR CARRIER SAFETY

Senator LAUTENBERG. I must tell you this. From the industry people here, I get a lot of support in the interests of motor carrier safety. I don't necessarily hear from a lot of the law enforcement departments of the States, but the fact is that there are commitments to improved safety with motor carriers. And I don't think we're gaining enough on it. Whatever improvements we see we are pleased to have.

But what do you get by way of statistics—do you get reports from the police departments, and from the motor vehicle departments of various States? What do you see being done about alcohol and drug or substance impairment with these accidents? Do you have that information? Do you get it regularly? On fatalities, I assume that every State's law enforcement department must report—that is standard now—here there has been alcohol involved or drugs involved. Do you get that information?

ACCIDENTS RELATED TO DRUGS OR ALCOHOL

Mr. MORGAN. Yes, sir; and it is only, obviously, as good as the report, and not all States, of course, require post-accident testing. Very often, it is a guess, an educated guess, by an arresting officer. So, I don't have any solid data that says alcohol use or alcohol-related accidents are on the decline or drug-related or other driver impairments. I don't have that information.

Senator LAUTENBERG. Is it worth finding out about?

Mr. MORGAN. Yes, sir; and I believe we will in time. But I don't believe we have a data system now that does that. Our fatal accident reporting system is extremely reliable. That is a 100-percent sample, and that is good. But as to the cause of the fatality, whether it was alcohol- or drug-related, I can't say how many.

Senator LAUTENBERG. But it ought to be fairly easy based on the information you get to find out whether there's alcohol or drugs involved.

Mr. MORGAN. Well, if there is obvious evidence, it is. But sometimes there isn't in drugs. There's no post-accident testing requirement that——

Senator LAUTENBERG. Is that something we ought to address legislatively?

Mr. MORGAN. Well, we have addressed it, of course, in the commercial motor vehicle area by regulation, but we have enjoined from the post-accident testing requirement of our new drug testing rule. And that is in court at this point in time.

CRS REPORT ON MOTOR CARRIER SAFETY

Senator LAUTENBERG. I'm looking at a Congressional Research Service report on fatalities, truck and bus fatalities, commercial carrier, safety statistics from 1982 to 1987, inclusive. While there is a modest decline overall, fatalities have increased in that period of

time. Injuries have increased from 1982 to 1987 in absolute terms. With trucks 10,000 pounds or greater, we had 5,229 fatalities in 1982. In 1987 it was 5,500. So, there has been no appreciable decline. No decline there from 1982, although a couple of years in between hit some higher peaks. Buses similarly totaled reflected about a 7-percent increase in truck and bus fatalities.

So, when I hear you say that we are gaining on it, it doesn't look like if there is a gain, that it's a significant gain.

Mr. MORGAN. My numbers don't agree with that; I'll have to square that for the record. It is possible that the numbers I'm looking at are for medium to heavy trucks and combination vehicles. It probably doesn't go all the way down to the 10,000-pound vehicle, and that could be a discrepancy. But I think we better square that up for the record.

DEFINITION OF MOTOR CARRIER

Senator LAUTENBERG. What is your definition of a motor carrier?

Mr. MORGAN. Well, for single commercial license purposes, it's 26,000 and up. Do you mean a commercial motor vehicle or motor carrier?

Senator LAUTENBERG. Yes; commercial motor carrier.

Mr. MORGAN. For purpose of most of our other regulations it is 10,000 pounds and up or a vehicle that can carry 15 passengers or more.

Senator LAUTENBERG. So, 10,000 up then is a reasonable cutoff point.

Mr. MORGAN. Yes.

Senator LAUTENBERG. OK. You have, I'm sure, the same information. We would like your analysis and response back on the differences, if any, or the trend line there.

Mr. MORGAN. Yes, sir; that will be provided for the record.

[The information follows:]

The truck accident statistics reported by the Congressional Research Service (CRS) and our truck accident figures do agree. In fact, CRS obtained its data from us. The sources of confusion during the hearing arose when fatal accident trends were used interchangeably with fatal accident rate trends.

The following table indicates fatal accidents involving medium and heavy trucks for the years 1977 and 1987. As shown, the total number of truck-involved fatalities increased from 5,229 in 1982 to 5,591 in 1987, while the fatal accident rate, which accounts for the year-to-year truck travel differences, decreased from 4.1 to 3.5 fatal accidents per 100 million vehicle miles during the same period.

FATAL ACCIDENTS INVOLVING MEDIUM AND HEAVY TRUCKS

[1977–1987]

Year	Fatal accidents	Total fatalities	Vehicle miles of travel [2]	Fatal accident rate [1]
1977	4,843	5,723	95,021	5.1
1978	5,405	6,356	105,739	5.1
1979	5,684	6,702	109,004	5.2
1980	5,042	5,971	108,491	4.6
1981	4,928	5,806	108,702	4.5
1982	4,396	5,229	106,880	4.1
1983	4,615	5,491	113,163	4.1
1984	4,831	5,640	123,927	3.9
1985	4,841	5,734	126,580	3.8
1986	4,785	5,579	130,141	3.7
1987 [3]	4,805	5,591	135,947	3.5

[1] Per 100 million vehicle miles of travel.
[2] Millions.
[3] Preliminary.

OUT-OF-SERVICE VEHICLES

Senator LAUTENBERG. Has FHWA conducted studies or assessments to address the problem of the percentage of trucks inspected with MCSAP funds that are not getting fixed after being taken out of service, and go back in service functionally illegally? Do you have fairly precise information on that?

Mr. MORGAN. I think probably the same information that is in the report. And we have done two studies outside of that—the Commercial Motor Vehicle Safety Alliance [CMVSA] and with Michigan. And it looks like the numbers were around 10 percent that did not get the defect corrected.

Senator LAUTENBERG. But continued being used.

Mr. MORGAN. Yes, sir.

And we are pursuing that with some other States to see if that's a good number.

Further, we have a research contract to be awarded this year which looks at it from a cost-to-cure basis, what would it cost to bring those 10 percent back in.

Senator LAUTENBERG. That is of the vehicles.

Mr. MORGAN. Yes, sir.

Senator LAUTENBERG. There is also a driver enforcement process that says that about 20 percent of the drivers were violating out-of-service citations as well.

Mr. MORGAN. Yes, sir.

Senator LAUTENBERG. Now, there the Michigan State Police corroborated your findings.

Mr. MORGAN. Yes.

Senator LAUTENBERG. Or was that the basis for your findings?

Mr. MORGAN. That was the basis for our findings. And we would include that issue, of course, in our new studies with some other things.

Senator LAUTENBERG. That sounds like a pretty high percentage. We're saying 20 percent of the drivers who violated the law continue to drive illegally; 10 percent of the trucks that failed the inspection tests were on the roads. What can we do about that?

Mr. MORGAN. Well, to get 100 percent, I don't think either we or the States have the manpower.

Senator LAUTENBERG. Is 20 percent a satisfactory level?

Mr. MORGAN. No, sir. No, sir; it's not.

A research contract would address that from the cost to cure and look at the benefits and costs and what is the best way to cure it. It would be very expensive.

Senator LAUTENBERG. Is there any funding request in 1990 to——

Mr. MORGAN. Well, it's part of our 1989 research budget for that research contract. As far as the other States—asking some other States to look into this similar to Michigan, that would come out of our discretionary motor carrier safety assistance funds.

Senator LAUTENBERG. Well, there is no specific request for 1990.

Mr. MORGAN. No, sir.

CONCERN OVER MOTOR CARRIER SAFETY PROGRESS

Senator LAUTENBERG. Well, it seems to me, (*A*) that FHWA is slow to address this problem, and (*B*) it's not aggressive enough unless you are satisfied that improvements cannot be made.

Mr. MORGAN. No.

Senator LAUTENBERG. Well, I urge you to take a second look at that.

ENFORCEMENT ISSUES

The Federal Motor Carrier Safety Program has some enforcement issues, obviously. Last year in the Senate Report No. 100–411, the committee concluded that based on your enforcement accomplishments for fiscal years 1983 through 1987, that FHWA made minimal progress in improving the quantity, quality, scope, and nature of its enforcement records.

And 1988 doesn't indicate much improvement at that time. And it is particularly true when one considers that 199 out of the 919 enforcement cases recommended during 1988 for prosecution were later dropped. Are they casual charges or was there insufficient preparation to make these cases stick, and get convictions?

Mr. MORGAN. One reason is, of course, our trend of going toward a civil forfeiture as opposed to criminal prosecution which can be done quicker with less evidentiary requirements and can be done strictly within FHWA without going to court. And I don't know how many of those we had last year.

I know the level. We are at about a $2 million level on forfeitures or fines, and that has stayed about constant over the last 3 years.

But I believe we have made it much more efficient. It's mostly we're trying to transfer the responsibility out to our field offices. We can handle many more cases.

I cannot answer you as to the specific reason that number was not prosecuted.

Senator LAUTENBERG. Well, I would like you to check that. That is, 20 percent. Questions arise as to whether or not the investigators are adequately trained on the legal rules of evidence and whether or not there has been any improvement in the effectiveness and vigor of your enforcement programs.

PROGRESS ON ENFORCEMENT

Is there anything you can tell the committee that would give us some assurance that next year's enforcement record is going to be improved in terms of the aggressiveness or success of your enforcement program?

Mr. MORGAN. Yes, sir; it will be.

Senator LAUTENBERG. What is my comfort level on that?

Mr. MORGAN. Well, your confidence level——

Senator LAUTENBERG. Comfort.

Mr. MORGAN. Your comfort level, yes, sir.

Well, we will have more agents in the field, and they will be better trained, and we will be able to handle the cases quicker without having to prepare a whole criminal prosecution.

And I don't think the measure of success of our program is the amount of money we collect in fines or the number of cases we prosecute. The measure of success is ultimately going to be what we can do with this issue of safety on our highway system.

Senator LAUTENBERG. Right, but I assume that this isn't simply a dress rehearsal. When you press charges it's because there were rules and laws violated. And if it is 20 percent of prosecutions sought or obtained, then it suggests that 80 percent were either casually, improperly cited or there was a lack of skill or organization to prosecute them. We are not recommending a lower number of violation charges, but want evidence that shows we're more diligent about the accusations, the charges that we make.

Mr. MORGAN. And we are doing safety reviews on many carriers that have never been reviewed before. And often we find a violation. We will issue a citation and a fine. And if they come quickly into compliance, if it was not a willful violation, we will often just wipe it off and mitigate it. Our aim is to get the motor carrier in compliance. So, we are hitting many carriers that we have never hit before because of our stepped-up safety review process. The predominant reason that an enforcement action is initiated on a first-time review is that the carrier does not have evidence of proper financial responsibility.

Senator LAUTENBERG. OK, because there has been an addition of 150 investigators.

Mr. MORGAN. Yes, sir.

Senator LAUTENBERG. And the fine level has leveled off. And once again, that is not our objective. The objective is to reduce accidents and damage out there, and we would like to see that happen.

Might the enforcement programs suffer if the committee refused to increase the number of motor carrier safety specialists? If we are not getting any improvement by adding them, might it suffer, on the other hand, if we dropped a few?

Mr. MORGAN. Yes, it would. Our goal to review all carriers, safety review and safety rate all carriers by 1993 obviously, cannot be met without an increase in personnel.

Senator LAUTENBERG. I hope that we will see, again, a better result for the effort that has gone into it. Some unit of measure is obviously available, and I'd look to you, Mr. Morgan, and get back to us fairly quickly on what your department thinks we can do to

develop a level of satisfaction that tells us we are going in the right direction.

Mr. MORGAN. Yes, sir; I'll be happy to provide it for the record.

[The information follows:]

The Federal Highway Administration believes that any measure used to assess our effectiveness must include improved carrier compliance with the Federal Motor Carrier Safety Regulations in addition to penalties assessed. The motor carrier safety program is producing excellent results in both of these areas.

A preliminary analysis of 975 compliance reviews on carriers previously assigned less than satisfactory safety ratings showed that 82 percent of the carriers raised their safety rating based on improved compliance since the previous review. Of those carriers which failed to improve their safety rating, over 40 percent were prosecuted.

In addition, the number of enforcement cases so far this year is up over 30 percent above last year. Without an increased number of safety specialists, projected accomplishments are unachievable, and the future goals and objectives of the program would have to be reevaluated.

SAFETY FITNESS RATINGS

Senator LAUTENBERG. Now, in terms of additional safety inspectors, section 215 of the Motor Carrier Safety Act of 1984 requires the FHWA to develop a procedure to determine the safety fitness of all interstate motor carriers. The request is for 150 additional safety inspectors.

For unrated motor carriers, FHWA conducts a safety review at the carrier's principal place of business and assigns an initial safety rating of satisfactory, conditional, or unsatisfactory.

For those carriers that have received an unsatisfactory or conditional safety rating, FHWA inspectors conduct compliance reviews at their principal place of business.

Now, your department rarely takes an enforcement action based on information collected during a safety rating.

What is the benefit in conducting these safety audits when 52 percent of the firms receive conditional or unsatisfactory ratings if we can't use that information to have some kind of an enforcement action to get them into a better standing?

Mr. MORGAN. We can use it. If they get a conditional or unsatisfactory and do not correct the situation and we go back in, there is nothing to prevent us from pursuing an enforcement action.

Senator LAUTENBERG. What kind of enforcement? Could you shut them down?

Mr. MORGAN. Well, it is generally a civil forfeiture, penalty, fine. I guess if it is stiff enough, you shut them down.

MOTOR CARRIER SAFETY STAFF

Senator LAUTENBERG. Your department estimates that there are roughly 180,000 carriers of property and persons, 25,000 shippers of hazardous materials. How many people do you have doing these inspections?

Mr. MORGAN. We have 228 inspectors in the field right now.

Senator LAUTENBERG. One doesn't have to be a mathematician to know that is a fairly long process.

What kind of penalty actions have you taken?

Mr. MORGAN. I don't have a list. But it is basically a fine. It's a civil forfeiture.

Senator LAUTENBERG. How many occasions have there been when fines have been imposed?

SAFETY REVIEWS CONDUCTED

Mr. MORGAN. As a result of just these safety reviews, a total of 456 cases have resulted in the collection of fines totaling $2 million.

Senator LAUTENBERG. How many audits were done in 1988?

Mr. MORGAN. I believe 30,000 some.

Senator LAUTENBERG. What do we think 1989 will show?

Mr. MORGAN. We would like to increase that. We would like to finish all of this by 1993.

Senator LAUTENBERG. So, that means that if you finish it by 1993, once in roughly 4 or 5 years, the carrier will be inspected.

Mr. MORGAN. I would hope more often than that.

Senator LAUTENBERG. Yes; I would think so.

Mr. MORGAN. After we get all the carriers rated, cataloged, inventoried, and the SAFETYNET system set up to track carriers and drivers, I would hope that it would be more than once every 4 or 5 years.

Senator LAUTENBERG. Well, there is also considerable turnover.

Mr. MORGAN. People entering and leaving.

Senator LAUTENBERG. That population of a couple hundred thousand could be a lot of different entities in that period of time.

Mr. MORGAN. Yes, sir; it doesn't sound like we are going to be able to catch up with it if those who do remain in business over the 4- or 5-year period could get pretty lax. I mean, they have a reasonable expectation that they are not going to be examined again for a while once you have been through there. I would guess that there could be, if one chose, a fair amount of laxity that develops. It's only when the fox is hanging around the door that the chickens behave. And we know that with IRS and other departments of Government, it's the unexpected or the unanticipated that keeps people on their toes with the numbers as they are.

It would be my goal, Mr. Chairman, that eventually the States become more involved in this also through the MCSAP program with perhaps increased emphasis on the MCSAP program in the post-1991 legislation. I don't really think the Federal inspectors themselves, unless we develop a large Federal police force, can do an adequate job of inspecting and safety-auditing all registered carriers on any sort of routine basis other than a strictly crash or emergency program or responding to complaints. I think we're going to have to ultimately get the States more involved in this.

Senator LAUTENBERG. Well, we may use them as part of the mechanism, but the responsibility of the interstate roads——

Mr. MORGAN. No problem. Just like the roadside safety inspections. As I say, we have 228 inspectors. The States are using close to 3,000, and it is much more effective that way.

Senator LAUTENBERG. Do you know how many safety reviews have been completed to date?

Mr. MORGAN. I'd like to say around 60,000, but I'd have to check that.

Senator LAUTENBERG. We're talking about 30,000 some a year.

URBAN CONGESTION

Mr. MORGAN. Yes, sir; we started off—yes, sir.

Senator LAUTENBERG. Part of our problem is congestion. As a result of substantial growth, the major highway systems in both rural and urban areas have experienced increasing congestion.

In New Jersey, 52 percent of the urban interstate mileage regularly experiences congestion. Nationally, about 40 percent regularly experiences congestion.

Now, you talked about the research you have done and you have under way to prevent gridlock, to use your terminology. What is budgeted for 1990 for congestion research?

Mr. MORGAN. In our traffic operations area of research, we're talking about $5 million. That's our entire traffic operations budget.

Senator LAUTENBERG. Does that strike you as a significant commitment toward getting that job done?

NEED FOR FOCUSED RESEARCH

Mr. MORGAN. It is a start, Mr. Chairman. It is going to take a lot more and a lot more focused program. I don't believe we can solve gridlock with research and development solely. We can maximize the use of our system with signalization and improved freeway operations, surveillance, control, in-vehicle navigation. But it is nothing that is going to happen in the short term, and we are now developing a long-term research effort with considerably, let's say, higher funding and with a State-industry-Federal cooperative effort which will take some fleshing out, and we would hope to make part of our 1991 legislation.

Senator LAUTENBERG. Don't we have some competing paths to go down here? We can focus on the better application of existing traffic management systems, as well as looking to new technologies for highways and vehicles.

Are you looking at both sides of this?

Mr. MORGAN. Yes, sir; and looking at transit. It's not just a highway problem. And transit and with the National Traffic Highway Safety Administration for the safety aspects of it.

Senator LAUTENBERG. And that all comes within that $5 million?

"PATHFINDER" PROJECT

Mr. MORGAN. Well, no, sir. That $5 million is our second step. We currently have a project going in Los Angeles with General Motors and the State of California a rather modest effort that has to do with in-vehicle navigation and communication. And we had hoped to build on that in other areas and also on continued research.

TRANSCOM

Senator LAUTENBERG. You are familiar, I think, with TRANSCOM. It is the bistate committee of New York and New Jersey.

Mr. MORGAN. Yes, sir.

Senator LAUTENBERG. They have received FHWA funding for operations and for special projects.

Mr. MORGAN. They have not received special funds. They have used part of their highway planning and research funds for that.

Senator LAUTENBERG. There is a case study of traffic operations in the George Washington Bridge corridor and an effort to use the AVI techniques of toll collection from buses using the Lincoln Tunnel. Using the AVI technology would allow buses to pass through the tunnels without stopping—automatic vehicle identification.

Does your 1990 budget proposal include any funding for TRANSCOM?

TRANSCOM FUNDING

Mr. MORGAN. No, sir; TRANSCOM, as I say, would be probably funded out of regular highway planning and research funds or urban planning funds.

Senator LAUTENBERG. Are you familiar with their work?

Mr. MORGAN. Yes, sir.

Senator LAUTENBERG. What do you think of their work?

Mr. MORGAN. Excellent. It has great potential.

Senator LAUTENBERG. Should we try to step up these Federal-State-private sector efforts like TRANSCOM?

Mr. MORGAN. Yes, sir; I think that is really where it's at. It's not purely a governmental problem or any one level.

Senator LAUTENBERG. Because it looks like a way to get significant returns on investment, and I wonder whether we couldn't provide some funding for this on a more direct basis instead of relying on the States to fund those programs.

Mr. MORGAN. I believe we have funding in the George Washington corridor study.

Senator LAUTENBERG. I thought you said that they were looking to——

Mr. MORGAN. No; you mentioned TRANSCOM. On the George Washington corridor study, we have already funded that, and that is one of several around the country that we are looking at.

And we have asked that if States can get a private industry-State-local project, we would like to contribute. We have no special funding. We would just take it out of our regular budget. But I think we have to build that way, Mr. Chairman, rather than telling them what they want.

Senator LAUTENBERG. You get the best of talent and the most aggressive interest in a case like that.

Mr. MORGAN. Yes, sir.

MOST SUCCESSFUL CONGESTION RESEARCH

Senator LAUTENBERG. What have you seen in terms of special research projects or techniques that might help us to cope with these congested conditions? Is there any particular thing that comes out of the work that has been done by your department that says, "Hey, this is the way to go?"

SMART VEHICLE/SMART HIGHWAY RESEARCH

Mr. MORGAN. I think the smart vehicle/smart highway, where the vehicle, highway, and driver can communicate without completely distracting the driver, has probably the most potential. And it has to be a dynamic system based on real-time information into the vehicle, based on also with control of both the freeway and the adjacent streets for diversion purposes. That that technology is here, and it could be turned in the next—I expect we will see some of that in the next 3 to 5 years.

Now, there is some advocacy in the highway community or in the transportation community for an automated highway and vehicle. The human factors elements of that are a little bit scary. The driver is not ready for that. And we would like to do a little work along those lines, but I don't think that's the answer within this decade.

Senator LAUTENBERG. It presents quite a picture to envision here with the younger driver, foot on the gas, the older driver, foot on the brake, both of them moving along at unsatisfactory rates. [Laughter.]

Having experienced both cycles, I can tell you I use a lot more brakes than I used to and a lot less gas pedal. [Laughter.]

FREEWAY MOBILITY

What is the role for FHWA or the Federal Government for strategies for improving freeway mobility?

Mr. MORGAN. I think we can provide a good forum. We are one that can bring the parties of interest together, private industry, the governments involved. I believe when we get a better defined program, we can be a funder of this type of operation, but it should be cooperative. I don't think it's only an FHWA problem or responsibility.

Senator LAUTENBERG. Where does the initiation for such programs come from? It is not the frustrated motorist.

Mr. MORGAN. No, sir.

The project in Los Angeles was initiated in a conversation at coffeebreak at a conference at the University of California. But, I mean, that's a little bit too informal to depend on for a concentrated program.

But I think that hopefully it's a State-local-industry. The State-local—they have a problem in how do you solve it. Now, I bring industry in because we're talking about equipment in the vehicle. We are talking about communications equipment both in and outside the vehicle which is generally not governmental. It's' the private sector has to supply that.

ROLE OF FHWA IN RESEARCH

Senator LAUTENBERG. But as an umbrella organization, wouldn't FHWA be a likely place?

Mr. MORGAN. Yes, sir.

Senator LAUTENBERG. Is there another place in Government?

Mr. MORGAN. No, sir; or the Department of Transportation because we are involved with UMTA and we are involved with the

National Highway Traffic Safety Administration. We stay close—you know, hooked up with them.

So, I think that—perhaps I said it wrong. An umbrella is probably a pretty good term, but I didn't want to lead you to believe we're going to fund this or start going out and telling folks what is good for them. I don't believe in that. I think they have to determine that and want to do something.

Senator LAUTENBERG. Yes; but it does need a coordinated effort, because if one or many States solve the problem in their area and others don't, the problem of congestion produces pollution that affects the other States, produces problems of timeliness, commuting difficulties. You name it.

ADDITIONAL CAPACITY AS SOLUTION

Let me ask you something. In terms of congestion relief, do you think that building new highways is an answer to the congestion problem?

Mr. MORGAN. Absolutely.

Senator LAUTENBERG. Well, I'll tell you why I asked that question. It sounds too simple to even pose. But what I have seen in my State—and we are the most densely populated State in the country, and if people who don't move with a degree of efficiency, we have a problem. It's quality of life. It's business. It's all kinds of things. It's attractiveness of the State, et cetera.

Every time we see a new highway built, we see development follow. It is almost simultaneous. It seems to me in terms of time cycling. And the next thing you know, whether it's route 80 or 280 in New Jersey or 78, those highways manage to get jammed up pretty quickly.

I would have to say on balance I don't know whether new highway construction has solved the problem or created it. I think it really challenges our capacity as a country to move people and goods. And that is why, when the Secretary talks about a balanced transportation network—I've been talking about it for some time—I think that we have to examine all the possibilities, otherwise, we'll be one large highway. New Jersey is not very wide, and it's not very long, and it wouldn't take a lot of concrete to just pave it over. There are those of us who will not stand for that.

So, when I hear you respond so emphatically, so quickly to say, well, new highway construction would relieve congestion, I think it is a challengeable response, Mr. Morgan.

BALANCING NEW CAPACITY WITH TECHNOLOGY

Mr. MORGAN. I said it would relieve congestion, and I think there is no substitute for new capacity. But there are a lot of caveats. I'm not an advocate of building new capacity just willy-nilly with the quality of life impacts, socioeconomic and so forth. You get much more out of an added lane than a whole lot of strategies. But I agree with the balanced transportation approach.

But we also have to look at our land use controls. If we want to start, we have to start looking at the demand controls if we want to really make use of the capacity we have out there. This country has just not gone to those strategies to any great extent, and I'm

not sure I advocate them. But in some cases it may be a last resort because we cannot build our way out of the situation. I want to make that plain. As I say, new capacity is an answer, but in some places it cannot be done or will not be done.

MOTOR CARRIER ACCESS

Senator LAUTENBERG. I just want to talk for a minute about motor carrier access, and that will conclude this hearing.

In last year's appropriations bill, this committee requested that FHWA refrain from issuing a final rulemaking on the definition of terminal and reasonable access for the large trucks until the Transportation Research Board had completed its congressionally mandated study of these two issues. The study is due to be released this summer, this July.

In the interim, however, FHWA has issued a notice of proposed rulemaking that defined both terminal and reasonable access. Comments are due on that notice of proposed rulemaking on May 1.

It was the intent of this committee that FHWA consider the Transportation Research Board [TRB] findings in its rulemaking. How do you plan to incorporate their findings into the rulemaking given that FHWA has already established a definition?

TRB REPORT

Mr. MORGAN. We don't intend to issue, obviously, any final rule until the TRB report is complete and until we have had public input into that report also. We felt that we could perhaps save some time and provide some input to TRB by going ahead with a proposed definition, as we saw it, and taking comments. We fully anticipate getting comment through the Federal Register process and perhaps through public meetings on the TRB report when it comes out also.

We had no intent to go against the wishes of the committee and, in fact, I believe the conference report directed that we not issue anything final until the study is completed and its results evaluated. And so, we have no intent of doing so, Mr. Chairman.

Senator LAUTENBERG. Then I would ask you this. In terms of meeting the request of the committee, is it possible for FHWA to extend the comment period on that call for rulemaking to allow the States a better period of time to submit their comments until September or after the release of the Transportation Research Board's report?

Mr. MORGAN. We have had a request to do so. We have also had a request from the Motor Carrier Safety Advisory Committee not to do so, which is our advisory committee, and we have those under consideration, Mr. Chairman.

Senator LAUTENBERG. Well, I hope that you will keep the Appropriations Committee's perspective in mind as you do this.

Mr. MORGAN. Yes, sir.

THANKS TO MR. MORGAN

Senator LAUTENBERG. Well, thank you very much. That concludes this hearing. And we appreciate once again the Federal Highway's flexibility and thoroughness in your presentation.

SUBMITTED QUESTIONS

Mr. Morgan, we will be submitting questions in writing, and I would hope that you would review our testimony, our discussion here today, and try to be quickly responsive to the questions that were left open.

Mr. MORGAN. Yes, sir.

Senator LAUTENBERG. And once again, on your rulemaking, we would like it to include the Transportation Research Board's findings.

Thank you very much.

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

QUESTIONS SUBMITTED BY SENATOR LAUTENBERG

BRIDGES

SENATOR LAUTENBERG: Of the 578,000 bridges in inventory nationally, we understand that 41% are judged to be either "structurally deficient" or "functionally obsolete." What is the estimated cost to correct these deficiencies? What is budgeted for this activity in 1990?

ANSWER: The estimate to replace or rehabilitate bridges eligible for the Highway Bridge Replacement and Rehabilitation Program (HBRRP) is:

ESTIMATED COST OF REPLACING OR REHABILITATING CURRENTLY DEFICIENT BRIDGES ELIGIBLE FOR THE HBRRP INCLUDING FEDERAL AND STATE SHARES
(in billions of dollars)

(1)	(2)	(3)	(4)	(5)	(6)
Interstate	811	$1.0	4,238	$2.5	$3.5
Primary	8,324	8.2	13,379	5.3	13.5
Secondary	13,538	4.7	14,295	2.1	6.8
Urban	4,657	5.1	5,423	2.2	7.3
Total Federal aid	27,330	$19.0	37,335	$12.1	$31.1
Off-system	102,949	15.8	48,136	3.8	19.6
Total	130,279	$34.8	85,471	$15.9	$50.7

(1) System

(2) Bridges Eligible for Replacement or Rehabilitation (sufficiency rating < 50)

(3) Estimated Replacement Cost

(4) Bridges Eligible for Rehabilitation (sufficiency rating 50-80)

(5) Estimated Rehabilitation Cost

(6) Total Cost

Interstate bridge needs are also eligible for funding under the Interstate Resurfacing, Restoration, Rehabilitation and Reconstruction Program.

The HBRRP authorization for each of FY 1987 through FY 1991 is $1.63 billion. After required deductions are made, including the discretionary bridge program, $1,372,400,000 is available for apportionment and obligation under the HBRRP in 1990.

SENATOR LAUTENBERG: What percent of those 2,100 bridges in New Jersey identified as deficient are estimated to have a remaining useful life of less than 3 years?

ANSWER: New Jersey has reported in the National Bridge Inventory that 197 bridges (9.4 percent) of the deficient bridges have a remaining life of less than 3 years.

SENATOR LAUTENBERG: How many new bridges will New Jersey be able to fund in 1990?

ANSWER: Each State annually selects projects, both bridge and other highway projects, within budgetary constraints and priority consideration. Assuming that New Jersey receives approximately the same amount of money and funds bridge projects in the same ratio as in previous years, the State should be able to fund approximately 75 bridge projects in 1990. These include replacement, rehabilitation and new structure projects.

SENATOR LAUTENBERG: Provide a listing of Federal funds needed to complete projects already begun.

ANSWER:

FEDERAL FUNDS NEEDED TO COMPLETE PROJECTS ALREADY BEGUN*

1.	Cochrane	AL	$15.2 million
2.	Franklin Street	IL	39.9
3.	Burlington	IA	20.0
4.	Million Dollar	ME	90.4
5.	Brooklyn	NY	72.4
6.	Manhattan	NY	139.9
7.	Queensboro	NY	23.4
8.	Main Avenue	OH	28.4
9.	Jamestown	RI	7.0
		Total	$ 436.6 million

* We anticipate an additional request (amount unknown) for the Weirton-Steubenville Bridge in West Virginia.

SENATOR LAUTENBERG: List by State the estimated costs to rehabilitate or replace deficient bridges eligible for the HBRRP.

ANSWER: The estimated costs are:

BRIDGE REPLACEMENT AND REHABILITATION

State	Cost (in thousands)	State	Cost (in thousands)
Alabama	$984827	Alaska	$36205
Arizona	64070	Arkansas	580768
California	1473773	Colorado	505099
Connecticut	2062547	Delaware	106734
Dist. of Col.	277806	Florida	850188
Georgia	1167089	Hawaii	115829
Idaho	105867	Illinois	1206543
Indiana	756317	Iowa	877287
Kansas	1106961	Kentucky	978044
Louisiana	1099815	Maine	201244
Maryland	926842	Massachusetts	1746214
Michigan	774159	Minnesota	526687
Mississippi	787133	Missouri	1689415

Montana	337231	Nebraska	559951
Nevada	23474	New Hampshire	249916
New Jersey	2059758	New Mexico	161368
New York	10316587	North Carolina	1805574
North Dakota	194556	Ohio	1323108
Oklahoma	1158916	Oregon	274302
Pennsylvania	3039866	Rhode Island	67674
South Carolina	358601	South Dakota	230518
Tennessee	1348929	Texas	1851747
Utah	60926	Vermont	220190
Virginia	816853	Washington	959102
West Virginia	1169421	Wisconsin	900523
Wyoming	83254	Puerto Rico	118192

NATIONAL TOTAL - $50,700 million or $50.7 billion

DISCRETIONARY BRIDGE PROGRAM

SENATOR LAUTENBERG: List by State and project the amount of discretionary funds released by the Secretary in fiscal years 1987, 1988 and to date in fiscal year 1989. Also provide each bridge project's rating factor.

ANSWER:

DISCRETIONARY BRIDGE PROGRAM

FUNDED PROJECTS FY 1987

Bridge Name	State	Discretionary Bridge Funds Received in FY 1987	Rating Factor
W. B. Crumpton	AL	$10,590,000.00	5.90
Little Colorado	AZ	6,480,000.00	23.71
Fisherman's Channel	CA	10,720,000.00	.91
Speer Blvd	CO	5,700,000.00	.73
Port Orange	FL	8,160,000.00	27.47
Burlington	IL	150,000.00	*
Franklin Street	IL	190,000.00	*
Staley Viaduct	IL	23,410,000.00	2.85
Burlington	IA	1,319,000.00	*
Keokuk	IA	400,000.00	*
Wabasha	MN	3,249,675.00	3.41
ASB	MO	2,114,944.73	*
W. Pennway	MO	4,620,000.00	1.48
Notre Dame	NH	2,433,650.99	6.43
Rt 40/In. Thor	NJ	12,700,000.00	14.24
Manhattan	NY	10,800,000.00	*
University Heights	NY	10,400,000.00	2.92
Alsea Bay	OR	20,000,000.00	18.88
Walnut Street	PA	20,040,000.00	12.66
Jamestown	RI	2,000,000.00	*
James Island	SC	21,169,750.00	*

* Project was selected for initial funding prior to the effective date of the rating factor criteria.

Karnes	TN	10,100,000.00	6.16
Old Williamstown	WV	4,000,000.00	6.52
Wabasha	WI	3,335,000.00	3.41
	Total	$194,082,020.72	

FUNDED PROJECTS FY 1988

Bridge Name	State	Discretionary Bridge Funds Received in FY 1988	Rating Factor
W.R. King	AL	$13,443,120.00	3.91
Potato Slough	CA	15,160,000.00	5.95
Speer Blvd	CO	11,539,200.00	.73
Niantic River	CN	19,338,320.00	4.29
Acosta #	FL	12,300,000.00	82.49
Wailoa	HA	4,400,000.00	1.00
MLK	IL	15,960,000.00	2.62
Franklin Street	IL	200,000.00	*
Staley Viaduct	IL	2,203,000.00	2.85
Burlington	IA	16,357,000.00	*
Natchez-Vidalia	MS	1,100,000.00	*
W. Pennway	MO	2,408,764.00	1.48
Nebraska City	NE	827,322.21	*
Wells Avenue	NV	12,080,000.00	6.47
Notre Dame	NH	10,000,000.00	6.43
Father Baker	NY	5,050,000.00	7.21
Girard & Belmont	PA	16,100,000.00	15.09
James Island	SC	61,939,400.00	*
Karnes	TN	1,518,000.00	6.16
	Total	$221,924,126.21	

\# Special Legislation

* Project was selected for initial funding prior to the effective date of the rating factor criteria.

FUNDED PROJECTS FY 1989

Bridge Name	State	Discretionary Bridge Funds Received in FY 1989	Rating Factor
Arroyo Seco	CA	$12,696,000.00	5.88
Acosta #	FL	50,000,000.00	82.49
Franklin Street	IL	2,300,000.00	*
Dubuque Eagle Pt.	IA	23,671,000.00	*
Million Dollar	ME	8,240,000.00	*
Lake Street	MN	9,100,000.00	5.90
W. Pennway	MO	4,186,316.00	1.48
Father Baker	NY	21,120,000.00	7.21
Queensboro	NY	41,250,000.00	*
Main Avenue	OH	1,252,322.00	8.75
South Slough	OR	9,280,000.00	4.35

West End	PA	15,028,800.00	1.61
Old Williamstown	WV	15,200,000.00	6.52
	Total	$213,324,438.00	

Special Legislation

* Project was selected for initial funding prior to the effective date of the rating factor criteria.

SENATOR LAUTENBERG: In addition to listing the grants made, provide a listing by State of the request made to the Secretary for fiscal years 1987, 1988 and to date for fiscal year 1989. Include the rating factor, total project costs and the requested Federal funds.

UNFUNDED PROJECTS FY 87

Rating Factor	Bridge Name	State	Total Project Cost	Federal-aid Funds Requested for FY 87
2.97	23rd St. Viad.	CO	11,604,000.00	$ 8,640,000.00
3.01	Williamsburg	NY	290,600,000.00	48,560,000.00
3.53	W. R. King	AL	16,960,000.00	11,248,000.00
3.83	Sixth Street	WV	27,000,000.00	2,000,000.00
6.22	South Slough	OR	11,800,000.00	160,000.00
7.63	Cheylan	WV	47,000,000.00	2,000,000.00
11.00	Girard & Belmont	PA	17,800,000.00	13,120,000.00
12.77	Founders	CN	19,600,000.00	5,000,000.00
17.54	Dan Ryan E'Way	IL	141,438,000.00	18,300,000.00
19.43	Bay St. Viad.	GA	11,160,000.00	48,000.00
20.15	Father Baker	NY	26,690,500.00	2,400,000.00
21.21	Rt 1&9 SB/Wav. Yds.	NJ	62,000,000.00	1,600,000.00
23.53	Rt 147/Grassy Sound	NJ	42,500,000.00	32,000,000.00
23.85	US 84/Red River	LA	16,000,000.00	4,000,000.00
25.81	US 40/Missouri R.	MO	23,200,000.00	5,300,000.00
45.72	Ouachita River	AR	10,232,000.00	800,000.00
52.23	Dickey Place	IN	14,805,000.00	11,844,000.00
53.59	US 30/Missouri R.	NE	10,800,000.00	50,000.00
54.30	Sabine River	TX	15,000,000.00	12,000,000.00
54.80	Clark (Alton)	IL	71,000,000.00	1,000,000.00
56.18	Willow Slough	KN	17,510,000.00	8,000.00
60.75	US 50/Nanticoke R.	MD	41,303,750.00	33,043,000.00
60.93	Acosta	FL	111,165,000.00	4,600,000.00
78.68	Wash. Baum Roanoke	NC	24,900,000.00	17,600,000.00
87.58	Charter Oak	CN	74,800,000.00	26,800,000.00
110.69	Baldwin	CN	154,500,000.00	2,000,000.00
123.06	Paris Landing	TN	39,954,000.00	31,963,200.00
563.18	Talmadge	GA	96,850,000.00	36,480,000.00

Note: The requests listed above in FY 87 are for construction or right-of-way. Preliminary engineering requests are no longer considered eligible by the FHWA for unfunded projects.

UNFUNDED PROJECTS: FY 88 REQUESTS

Rating Factor	Bridge Name	State	Total Project Cost	Federal-Aid Funds Requested For FY 1988
2.89	Williamsburg	NY	$290,600,000.00	$47,400,000.00
5.42	"Q"	CN	14,000,000.00	11,200,000.00
6.94	South Slough	OR	11,800,000.00	160,000.00
11.28	Quachita River	AR	12,000,000.00	800,000.00
14.44	Jefferson St	TN	12,500,000.00	640,000.00
19.03	Bay St Viad	GA	10,700,000.00	8,600,000.00
19.07	Dan Ryan	IL	130,900,000.00	104,700,000.00
20.43	Dog River	AL	16,200,000.00	12,900,000.00
22.20	US 40/Mo. R.	MO	23,200,000.00	4,300,000.00
24.55	Rt 147/Grassy S	NJ	46,300,000.00	33,200,000.00
25.40	SR 858/ICWW	FL	10,500,000.00	660,000.00
27.34	US 30 (Blair)	NE	10,800,000.00	2,340,000.00
27.47	Lake Street	MN	17,600,000.00	14,080,000.00
29.09	South St Viad	NJ	14,200,000.00	400,000.00
33.21	Highlandview	FL	10,700,000.00	700,000.00
40.43	US63(Jeff City)	MO	36,200,000.00	9,200,000.00
48.15	Dickey Place	IN	14,700.000.00	11,300,000.00
51.71	IntracoastalWay	LA	27,500,000.00	4,100,000.00
54.10	US 50/Nanticoke	MD	35,200,000.00	28,200,000.00
56.24	Clark (US 67)	IL	71,000,000.00	8,260,000.00
57.62	US61/Homochitto	MS	10,300,000.00	8,200.000.00
61.51	Jekyll/Is.C'Way	GA	12,600,000.00	10,100,000.00
64.82	North Channel	NY	64,300,000.00	51,500,000.00
79.42	Willow Slough	KY	17,500,000.00	12,800,000.00
85.64	Paris Landing	TN	39,900,000.00	32,000,000.00
91.77	ChoctawhatcheeBy	FL	18,500,000.00	14,800,000.00
92.19	Tom Edison	FL	33,500,000.00	1,500,000.00
113.38	Charter Oak	CN	81,300,000.00	65,000,000.00
134.65	Baldwin	CN	164,100,000.00	2,200,000.00

Note: The requests listed above in FY 88 are for construction or right-of-way. Preliminary engineering requests are no longer considered eligible by the FHWA for unfunded projects.

UNFUNDED PROJECTS: FY 89 REQUESTS

Rating Factor	Bridge Name	State	Total Project Cost	Federal-aid Funds Requested for FY 89
2.24	Rt 3/Berry's Creek	NJ	$18,200,000.00	$240,000.00
4.86	SR 115/Mo. River	MO	55,905,000.00	44,724,000.00
5.17	J.P. Sousa	DC	20,000,000.00	16,000,000.00
6.55	Sixth Street	WV	28,335,000.00	20,000,000.00
7.47	Prescott	MN	16,280,000.00	6,512,000.00
7.82	Queens Mid. Viad.	NY	34,870,000.00	27,896,000.00
8.44	Arrigoni	CN	20,250,000.00	16,200,000.00
12.62	Jefferson St.	TN	12,500,000.00	10,000,000.00
15.55	Rt 147/Grassy S.	NJ	40,000,000.00	32,000,000.00

21.67	Dog River	AL	16,025,000.00	12,820,000.00
30.63	NJ 36/Shrewsbury R.	NJ	19,713,000.00	150,000.00
31.87	Bayou Chico	FL	15,622,000.00	440,000.00
32.33	US 30/Mo. R.	NE	11,890,000.00	3,319,605,00
42.53	Clark (Alton)	IL	80,776,000.00	3,884,000.00
48.59	Paris Landing	TN	28,307,000.00	22,645,600.00
50.59	Sabine River	TX	15,000,000.00	12,000,000.00
55.52	Dickey Place	IN	15,675,560.00	12,200,448.00
78.40	Baldwin	CN	131,726,250.00	105,381,000.00
92.87	Red River	TX	10,100,000.00	8,080,000.00
112.75	Lavaca Bay C'Way	TX	18,500,000.00	14,800,000.00
138.58	Forest City	SD	21,500,000.00	4,000,000.00
142.12	18th Street/R.R.	KN	17,438,000.00	13,950,000.00
196.38	Navajo	AZ	9,300,000.00	7,440,000.00
	Virginia St.#	WV	4,500,000.00	3,440,000.00

Special Legislation made this bridge eligible for consideration

Note: The requests listed above in FY 89 are for construction or right-of-way. Preliminary engineering requests are no longer considered eligible by the FHWA for unfunded projects.

PAVEMENT CONDITIONS

SENATOR LAUTENBERG: How reliable is this pavement rating system?

ANSWER: We consider the relative changes in pavement condition, using current procedures, to be accurate enough for national level policy work, that is, comparing overall pavement conditions over time on the various highway systems. We believe the absolute values to be less accurate, due to rating variability among States.

For purposes of performance monitoring and evaluation, the relative change in pavement condition is considered more significant than the absolute value, because relative changes indicate trends in pavement condition. In recognition of the need to improve the absolute rating, however, the Federal and State governments are pursuing new procedures for evaluating pavements that remove, where practicable, the need for subjective interpretation of pavement conditions. Although we consider past pavement ratings adequate, the development of micro management tools, particularly pavement management systems, requires that pavement rating procedures be constantly reviewed and updated to provide the most timely and precise information possible for highway administrators.

SENATOR LAUTENBERG: Is there a goal to hold deficient interstate pavement below a certain percentage? If so, what is it, and how was it derived? If there is no such goal, would you explain why none exists and give us your views on establishing one?

ANSWER: There is no goal to hold deficient Interstate pavements below a certain percentage. In order for States to transfer funds from the Interstate 4R Program to the Federal-aid Primary Program, the State must

certify the condition of the Interstate System, including a plan to resurface or reconstruct any pavement that is considered deficient. A rating of 2.5 is generally considered the break point between the application of resurfacing rather than reconstruction to restore pavement serviceability. Since pavement reconstruction may cost as much as 300 percent more than the cost of resurfacing, it is generally considered more cost-effective to target pavements as they deteriorate near or just beyond the 2.5 mark. Since this is a widely practiced pavement management strategy, it has become traditional to report Interstate pavements at or below 2.5 as the measure of deficiencies. As additional information gathered from pavement management programs comes on line, the definition of deficiency may change.

SENATOR LAUTENBERG: Why do some states have such a high level of deficient interstate pavement? What needs to be done about it, and by whom?

ANSWER: The two most important factors behind the wide variance among States in the physical condition of the Interstate System are age and traffic loading. Logically, older facilities and facilities that carry a heavy traffic load show more deterioration than newer facilities and facilities that carry light traffic. Climate and the soil type used in subbase construction also effect physical condition. Some State by State variance can be credited to the differing ways in which states prioritize highway projects. Finally, some variance can be explained by the differences in procedures used in rating pavement conditions.

The application of standardized pavement rating procedures should reduce the variance substantially between States. To the extent that high deficiency ratings accurately reflect pavement conditions in certain States, the only solution is vigorous and continued application of capital funding, enforcement of size and weight restrictions, and the development and implementation of effective pavement management programs to identify and rectify existing and anticipated future pavement deficiencies in a cost-effective manner.

SENATOR LAUTENBERG: Would you summarize the Federal role in ensuring that the Interstate system is adequately preserved?

ANSWER: The Federal role in assuring the preservation of the Interstate System consists of (1) providing adequate funding at the appropriate matching ratio to ensure sufficient total funds to maintain adequate condition serviceability and (2) monitoring the condition of the System.

NEW JERSEY AND U.S. HIGHWAY CONDITIONS

SENATOR LAUTENBERG: Please describe briefly the conditions on our Nation's highways in general and in New Jersey specifically. What areas and systems are in the best shape, and what systems and areas are in the worst shape - both nationally and in New Jersey?

ANSWER: Nationally, pavement condition has improved since the passage of the STAA in 1982. In 1987, rural other arterials were in the best condition, with only 6 percent of their mileage in need of capital improvement. Rural collectors were in the worst condition, with 15 percent of their mileage in poor condition. In terms of pavement condition, New Jersey's urban Interstates and all of the state's rural systems rank better than the national average. Rural Interstates are in the best condition, with only 3 percent of their mileage in poor condition. Urban collectors rank last, with 15 percent of their mileage in poor condition.

Nationally, congestion continues to be a significant problem. In 1987, almost 40 percent of urban Interstate mileage experienced congestion regularly. In New Jersey, this figure was 52 percent. Nationally, bridge conditions have worsened. Of the 578,000 bridges inventoried, 41 percent are classified as being either structurally deficient or functionally obsolete. Of the 5,997 bridges inventoried in New Jersey, 35 percent are deficient. Perhaps the best indicator of condition is unit travel costs. There are three types of unit travel costs: operating costs, accident costs and time costs. On a national level, only time costs increased between 1985 and 1987, which points directly to increases in congestion. These unit costs are computed only at a national level and are not available for New Jersey.

ESTIMATED NEW JERSEY HIGHWAY MILEAGE
BY PAVEMENT CONDITION, YEAR (1983 - 1987) AND FUNCTIONAL SYSTEM

(In percent)

FUNCTIONAL SYSTEM AND YEAR	PRESENT SERVICEABILITY RATING (1) LESS THAN OR EQUAL TO 2.0[1]	(2) LESS THAN OR EQUAL TO 3.0	(3) GREATER THAN OR EQUAL TO 4.0
RURAL INTERSTATE			
1983	0.8	5.5	47.7
1985	10.1	27.1	45.0
1987	2.4	11.1	49.2
URBAN INTERSTATE			
1983	5.5	16.6	27.3
1985	7.0	58.6	25.8
1987	4.5	21.0	33.3
RURAL OTHER ARTERIALS			
1983	13.0	65.0	15.6
1985	13.7	52.5	27.0
1987	4.1	36.6	17.1
URBAN OTHER ARTERIALS			
1983	4.7	51.9	21.4
1985	15.0	65.0	21.9
1987	14.8	49.0	21.7
RURAL COLLECTORS			
1983	2.5	25.1	44.6
1985	17.2	67.4	15.5
1987	10.7	57.9	28.7
URBAN COLLECTORS			
1983	2.3	50.0	14.1
1985	15.4	79.1	7.8
1987	15.0	79.8	13.2

NOTE: The pavement service rating categories above represent: (1) pavement that needs improvement, (2) pavement that needs or may soon need improvement, and (3) pavement that is in very good condition. The categories are not sequentially exclusive and intentionally do not sum to 100 percent.

SOURCE: HPMS Master Datasets, Summary Tables Runs, 1983-87.

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[1]Less than 2.5 for Interstate.

TABLE V-2

ESTIMATED COST OF REPLACING OR REHABILITATING CURRENTLY DEFICIENT BRIDGES ELIGIBLE FOR THE HBRRP INCLUDING FEDERAL AND STATE SHARES

(in billions of dollars)

System	Bridges Eligible for Replacement or Rehabilitation (sufficiency rating < 50)	Estimated Replacement Cost	Bridges Eligible for Rehabilitation (sufficiency rating 50-80)	Estimated Rehabilitation Cost	Total Cost
Interstate	811	1.0	4,238	2.5	3.5
Primary	8,324	8.2	13,379	5.3	13.5
Secondary	13,538	4.7	14,295	2.1	6.8
Urban	4,657	5.1	5,423	2.2	7.3
Total Federal aid	27,330	$19.0	37,335	$12.1	$31.1
Off-system	102,949	15.8	48,136	3.8	19.6
Total	130,279	$34.8	85,471	$15.9	$50.7

Interstate bridge needs are also eligible for funding under the Interstate Resurfacing, Restoration, Rehabilitation and Reconstruction Program.

COUNT OF DEFICIENT BRIDGES BY STATE
ON FEDERAL-AID SYSTEM
AS OF JUNE 30, 1988

	BRIDGES IN INVENTORY	NON-DEFICIENT BRIDGES	STRUCTURALLY DEFICIENT	FUNCTIONALLY OBSOLETE	DEFICIENT BRIDGES
ALABAMA	7,741	4,664	1,008	2,069	3,077
ALASKA	578	531	38	9	47
ARIZONA	4,526	4,255	72	199	271
ARKANSAS	5,952	4,257	335	1,360	1,695
CALIFORNIA	14,836	12,066	522	1,628	2,150
COLORADO	3,570	2,964	454	152	606
CONNECTICUT	2,682	982	640	1,060	1,700
DELAWARE	475	401	47	27	74
DIST. OF COL.	210	164	45	1	46
FLORIDA	6,111	5,080	128	903	1,031
GEORGIA	8,053	5,189	858	2,006	2,864
HAWAII	664	509	84	71	155
IDAHO	1,674	1,443	158	73	231
ILLINOIS	10,666	8,486	1,694	486	2,180
INDIANA	7,272	4,971	733	1,568	2,301
IOWA	7,192	5,277	741	1,174	1,915
KANSAS	10,774	7,567	795	2,412	3,207
KENTUCKY	4,953	2,762	234	1,957	2,191
LOUISIANA	5,976	4,193	861	922	1,783
MAINE	1,278	1,066	145	67	212
MARYLAND	2,786	1,721	443	622	1,065
MASSACHUSETTS	3,758	2,547	1,078	133	1,211
MICHIGAN	5,855	4,644	963	248	1,211
MINNESOTA	5,148	4,293	535	320	855
MISSISSIPPI	7,527	4,367	1,462	1,698	3,160
MISSOURI	8,863	5,463	1,934	1,466	3,400
MONTANA	2,448	1,128	91	1,221	1,312
NEBRASKA	5,108	3,768	805	535	1,340
NEVADA	802	714	16	72	88
NEW HAMPSHIRE	1,242	952	162	128	290
NEW JERSEY	4,218	2,919	901	398	1,299
NEW MEXICO	2,734	2,256	258	220	478
NEW YORK	8,817	3,456	4,770	591	5,361
NORTH CAROLINA	5,556	3,867	232	1,457	1,689
NORTH DAKOTA	1,782	1,095	158	529	687
OHIO	12,271	10,076	2,038	157	2,195
OKLAHOMA	8,511	5,301	1,214	1,996	3,210
OREGON	3,752	3,323	246	183	429
PENNSYLVANIA	10,848	7,062	2,674	1,112	3,786
RHODE ISLAND	566	473	71	22	93
SOUTH CAROLINA	4,237	3,447	232	558	790
SOUTH DAKOTA	2,751	2,293	253	205	458
TENNESSEE	7,498	4,965	1,137	1,396	2,533
TEXAS	20,076	21,318	1,315	3,443	4,758
UTAH	1,572	1,475	71	26	97
VERMONT	1,299	858	163	278	441
VIRGINIA	6,850	5,239	804	807	1,611
WASHINGTON	4,034	2,817	636	581	1,217
WEST VIRGINIA	3,328	1,680	1,165	483	1,648
WISCONSIN	6,351	4,172	1,738	441	2,179
WYOMING	1,902	1,762	51	89	140
PUERTO RICO	1,006	581	42	333	425
TOTAL	274,583	197,391	37,300	39,892	77,192

COUNT OF DEFICIENT BRIDGES BY STATE
OFF FEDERAL-AID SYSTEM
AS OF JUNE 30, 1988

	BRIDGES IN INVENTORY	NON-DEFICIENT BRIDGES	STRUCTURALLY DEFICIENT	FUNCTIONALLY OBSOLETE	DEFICIENT BRIDGES
ALABAMA	7,793	3,319	2,941	1,533	4,474
ALASKA	222	158	48	16	64
ARIZONA	1,097	956	88	53	141
ARKANSAS	7,065	2,939	1,261	2,865	4,126
CALIFORNIA	7,425	3,854	1,144	2,427	3,571
COLORADO	3,858	1,796	1,754	308	2,062
CONNECTICUT	1,147	446	321	380	701
DELAWARE	263	162	32	69	101
DIST. OF COL.	27	24	3	0	3
FLORIDA	4,077	2,893	482	702	1,184
GEORGIA	6,173	2,999	2,662	512	3,174
HAWAII	379	258	31	90	121
IDAHO	2,071	1,228	402	441	843
ILLINOIS	14,762	9,587	3,619	1,556	5,175
INDIANA	10,245	4,890	3,074	2,281	5,355
IOWA	18,673	8,212	5,299	5,162	10,461
KANSAS	14,874	5,348	4,591	4,935	9,526
KENTUCKY	7,638	2,370	1,973	3,295	5,268
LOUISIANA	8,163	3,544	3,098	1,521	4,619
MAINE	1,385	750	291	264	555
MARYLAND	1,788	981	260	547	807
MASSACHUSETTS	1,206	494	636	76	712
MICHIGAN	4,726	2,626	1,665	435	2,100
MINNESOTA	7,846	5,003	1,376	1,467	2,843
MISSISSIPPI	9,467	3,643	4,959	865	5,824
MISSOURI	14,819	3,154	10,413	1,252	11,665
MONTANA	2,192	769	404	1,019	1,423
NEBRASKA	10,743	3,289	6,831	623	7,454
NEVADA	271	200	34	37	71
NEW HAMPSHIRE	1,330	495	360	475	835
NEW JERSEY	1,779	974	451	354	805
NEW MEXICO	705	439	152	114	266
NEW YORK	8,509	2,058	5,639	812	6,451
NORTH CAROLINA	10,599	3,799	875	5,925	6,800
NORTH DAKOTA	3,501	1,147	1,801	553	2,354
OHIO	16,909	13,106	2,456	1,347	3,803
OKLAHOMA	14,470	4,774	7,015	2,681	9,696
OREGON	2,856	2,150	331	375	706
PENNSYLVANIA	11,609	6,488	3,316	1,805	5,121
RHODE ISLAND	136	93	27	16	43
SOUTH CAROLINA	4,649	3,664	707	278	985
SOUTH DAKOTA	4,071	1,339	1,407	1,325	2,732
TENNESSEE	11,048	6,192	3,229	1,627	4,856
TEXAS	18,238	7,843	5,257	5,138	10,395
UTAH	971	710	191	70	261
VERMONT	1,366	496	340	530	870
VIRGINIA	5,802	3,129	803	1,870	2,673
WASHINGTON	2,864	2,220	284	360	644
WEST VIRGINIA	3,185	842	1,630	713	2,343
WISCONSIN	6,612	3,358	2,240	1,014	3,254
WYOMING	924	388	269	267	536
PUERTO RICO	679	366	54	259	313
TOTAL	303,127	141,962	98,526	62,639	161,165

RESOURCES AND ANALYSIS

SENATOR LAUTENBERG: What is the total number of separate databases maintained by the Federal Highway Administration (FHWA)?

ANSWER: The FHWA maintains nationwide mainframe-based management information systems to support 4 major program areas: (1) management information systems for the Federal-aid Highway program, (2) management information and engineering systems for the Direct Federal program, (3) management information systems for the Motor Carrier Safety program, and (4) administrative support information systems. Over the last several years, the FHWA has converted these major systems to modern on-line database management systems technology. This technology provides the capability to link related sub-databases to support the functions and information requirements of the major systems. Therefore, we look at each major system as being supported by a single database. For example, the Motor Carrier Management Information System (MCMIS) contains sub-databases for accident reports, vehicle inspections, safety and compliance reviews, and enforcement actions; these sub-databases are linked together by a unique census number assigned to each carrier. There are 12 major databases supporting the 4 major areas of FHWA's management information systems.

SENATOR LAUTENBERG: What is the level of funding for each of FHWA's databases in FY 1989 and proposed for FY 1990?

ANSWER: Funding requests for FHWA's nationwide mainframe-based management information systems include: (1) mainframe processing and storage costs at the Transportation Computer Center, which is operated by the Office of the Secretary of Transportation, and (2) systems analysis/programming costs for software development, maintenance, and support. The mainframe processing and systems analysis/programming costs for the 4 major areas of FHWA's management information systems are:

System Area	Type of Cost	FY 1989	FY 1990
Federal-aid	Processing	$3,933,000	$3,763,000
Highways	Programming	$1,790,000	$1,841,000
Direct Federal	Processing	$ 290,000	$ 275,000
	Programming	$ 0	$ 0
Motor Carriers	Processing	$1,800,000	$2,000,000
	Programming	$ 560,000	$1,050,000
Administrative	Processing	$ 795,000	$ 895,000
	Programming	$ 490,000	$ 770,000

Note: In addition, the FHWA will spend $400,000 in FY 1989 and $414,000 in FY 1990 for nationwide data communications services to support these systems.

SENATOR LAUTENBERG: Please describe what FHWA is doing to overcome the weaknesses OTA cited for each of the data bases.

ANSWER: Although all interstate for-hire and private carriers are required by FHWA regulation to submit the accident

data, our studies indicate some under-reporting. As the SAFETYNET accident reporting module is implemented this July, accident data submitted by States will be computer matched with carrier submitted reports. Carriers failing to report will be reminded by computer generated letter of the requirement to do so. This should resolve most of the under-reporting problems currently being experienced.

The Special Monitoring Study is a stop-gap measure we instituted to assure that there is not a truck safety problem on the National Network. The degree of precision exhibited by that data base was never intended to meet any other objective than this and now that that has been nearly achieved we expect to begin dismantling the data reporting system in the near future. Other reporting mechanisms and systems now underway and planned will meet our continuing need for accident data.

Another type of data maintained in the MCMIS is carrier census data. While this data are somewhat incomplete, our education and enforcement programs and SAFETYNET will remedy this.

Significant progress has been made in improving truck exposure data through the Highway Performance Monitoring System (HPMS) and the Truck Weight Study (TWS). FHWA issued the Traffic Monitoring Guide for States' use in building on the statistical sample of highways designated by each State as part of the HPMS to produce vehicle counts, classifications into one of 13 classes and truck weights. These procedures rely on new electronic technology such as automatic vehicle classification (AVC) and weigh in motion (WIM). Other specific FHWA initiatives to promote these statistical procedures have included: training courses for State personnel; numerous technology transfer projects like national conferences to demonstrate the capabilities of new AVC and WIM equipment; and providing to the States maximum latitude in the use of Federal-aid construction and planning funds for new equipment purchase and installation. States are well along in implementing these new procedures and technology.

HIGHWAY-RELATED SAFETY GRANTS PROGRAMS

SENATOR LAUTENBERG: List the Highway Related Safety Grants awarded by State for Fiscal Years 1988 and 1989 for the Section 402 program administered by Federal Highway Administration (FHWA).

ANSWER: Following is a list of funds apportioned to each State in Fiscal Years 1988 and 1989 for carrying out programs under the FHWA Section 402 highway safety program.

STATE	FY 1988	FY 1989
ALABAMA	$177,356	$176,188
ALASKA	49,875	49,500
ARIZONA	133,622	132,910
ARKANSAS	119,802	118,956
CALIFORNIA	856,085	839,896
COLORADO	138,682	137,933
CONNECTICUT	110,367	109,576
DELAWARE	49,875	49,500
FLORIDA	369,177	367,300
GEORGIA	238,443	236,812
HAWAII	49,875	49,500
IDAHO	73,979	73,514

ILLINOIS	444,336	.441,416
INDIANA	229,958	.228,330
IOWA	161,504	.160,331
KANSAS	156,562	.155,627
KENTUCKY	158,628	.157,496
LOUISIANA	168,952	.167,624
MAINE	.49,875	49,500
MARYLAND	150,396	.149,431
MASSACHUSETTS	202,185	.200,700
MICHIGAN	365,339	.362,756
MINNESOTA	207,389	.206,184
MISSISSIPPI	123,975	.123,235
MISSOURI	229,068	.227,586
MONTANA	.69,105	68,676
NEBRASKA	106,501	.105,870
NEVADA	.52,718	52,537
NEW HAMPSHIRE	.49,875	49,500
NEW JERSEY	253,783	.251,915
NEW MEXICO	.74,266	73,821
NEW YORK	622,901	.618,434
NORTH CAROLINA	243,671	.241,655
NORTH DAKOTA	.73,798	73,324
OHIO	411,001	.408,089
OKLAHOMA	164,111	.162,983
OREGON	141,577	.140,155
PENNSYLVANIA	446,365	.443,245
RHODE ISLAND	.49,875	49,500
SOUTH CAROLINA	137,753	.136,830
SOUTH DAKOTA	.67,161	66,690
TENNESSEE	196,844	.195,315
TEXAS	626,116	.626,213
UTAH	.76,989	76,413
VERMONT	.49,875	49,500
VIRGINIA	209,592	.208,258
WASHINGTON	180,258	.178,356
WEST VIRGINIA	.83,322	82,749
WISCONSIN	215,774	.214,371
WYOMING	.49,875	49,500
DIST. OF COLUMBIA	.49,875	49,500
PUERTO RICO	107,088	.106,300
AMERICAN SAMOA	.24,938	24,750
GUAM	.24,938	24,750
N. MARIANAS	.24,938	24,750
VIRGIN ISLANDS	.24,937	24,750
SUBTOTAL	.$9,925,125	$9,850,500
SECRETARY OF INTERIOR	.49,875	49,500
TOTAL	$9,975,000	$9,900,000

WOMEN OWNED BUSINESSES

SENATOR LAUTENBERG: Do you believe that the risk of front businesses being involved in the DBE program increased when women-owned businesses became eligible for program participation?

ANSWER: Because it is possible to transfer business ownership to female relatives and still retain the business within the family, we believe there is a possibility of increased risk of fronts attempting to obtain certification. We also believe that the recipient's comprehensive certification and verification processes are effective in helping to keep "fronts" from obtaining DBE certification.

SENATOR LAUTENBERG: How does FHWA guard against the certification of front businesses?

ANSWER: Our regulations require each recipient to have an FHWA approved certification program which requires a thorough review of each applicant's ownership and control of its business. On-site reviews and interviews at the applicants place of business are also required to further verify each firm's eligibility for certification.

SENATOR LAUTENBERG: SBA requires a business to be operational for a 2-year period before it is eligible to participate in the 8(a) program. Does FHWA have a comparable requirement for participation in the DBE program? If not, do you believe that such a requirement would be an effective guard against front businesses getting certified for the DBE program?

ANSWER: There is no such requirement in the Departmental DBE program. However, most if not all of the certifying agencies consider the time each business was formed as part of the certification process. Such a requirement could possibly be beneficial in helping to prevent fronts from obtaining certifications because each firm would have to have a minimal 2-year "track record" under the ownership and control of the applicant which could be thoroughly reviewed in the certification process.

SENATOR LAUTENBERG: How many women-owned businesses have been added to the program since the legislative change?

ANSWER: Because of the constant changes being made in States' certified DBE registers, we do not have information concerning the number of women-owned businesses which have been added to the program. However, DBE participation data reported by the States show that ethnic minority participation in the Federal-aid highway program fell from 12.3 percent in 1986 to 10.5 percent in 1988. During this same period women-owned business enterprise participation in the program rose from 3.0 percent to 4.4 percent.

SENATOR LAUTENBERG: How many of these businesses were organized in the same year they applied for DBE participation?

ANSWER: As indicated in the preceding answer, we do not track this type of information because of the constant changes which occur in States' DBE certification registers.

SENATOR LAUTENBERG: Is it still your position that it would not be cost-effective to expand your information system to collect pertinent information on the results of such activities as fraud and abuse investigations, certification of DBEs and reassessment actions, and monitoring reviews, to help assess and guard against DBE program fraud and abuse?

ANSWER: Yes, because none of this information would provide any data regarding fraudulent firms which are participating in

the program and go undetected. Because of these circumstances, collection of the additional data suggested in the GAO's November 30, 1988, report would be of limited value in guarding against DBE program fraud and abuse. Our existing process to keep out fronts is an effective process which extends from initial certification through project completion. This process includes comprehensive certification application reviews; on-site reviews of applicants' places of business (home offices); project monitoring by Federal and State personnel; FHWA reviews of State DBE program managment; the (regulatory) third-party complaint process to challenge and investigate questionable firms; and the Office of Inspector General's "hot line" for reporting fraud and abuse.

SENATOR LAUTENBERG: What would it cost to expand your information system to collect such data?

ANSWER: We estimate it would cost about $1 million per year nationally. This estimate is based on a projection of expenditures for both Federal and State personnel and data processing equipment time to gather and process the information. Most of this cost would have to be absorbed by the States, which unfortunately, are struggling with shrinking resources and budgets.

SENATOR LAUTENBERG: For the record provide by State, by minority group, the dollar amount and number of contracts awarded for both prime and subcontract awards. Provide the information for fiscal years 1987 and 1988.

ANSWER: The following 1987 and 1988 tabulations provide the information requested.

MBE ETHNIC AND WBE PRIME AND SUBCONTRACTING AWARDS

FOR FY-1987, 12 MO. SUMMARY

STATE	BLACK AMERICAN		HISPANIC AMERICAN		NATIVE AMERICAN		ASIA-INDIA AM.		ASIA-PAC AM.		OTHERS		ETHNIC TOTALS		WBE TOTALS		GRAND TOTALS	
	AWARDS No.	AMOUNT $(1000)	AWARDS No.	AMOUNT $(1000)	AWARDS No.	AMOUNT $(1000)	AWARDS No.	AMOUNT $(1000)	AWARDS No.	AMOUNT $(1000)	AWARDS No.	AMOUNT $(1000)	AWARDS No.	AMOUNT $(1000)	AWARDS No.	AMOUNT $(1000)	AWARDS No.	AMOUNT $(1000)
ALABAMA	130	13,841	5	623	45	3,521	0	0	0	0	0	0	180	817,985	73	4,103	253	22,088
ALASKA	10	655	18	2,460	51	10,188	0	0	4	471	0	0	83	13,773	40	3,177	123	16,950
ARIZONA	22	1,295	90	11,896	19	4,239	1	392	6	538	1	47	139	18,407	59	3,757	198	22,164
ARKANSAS	60	3,991	1	81	21	3,033	0	0	0	0	2	18	92	7,123	79	3,238	171	10,361
CALIFORNIA	275	29,553	555	80,685	110	4,859	16	2,921	96	6,326	75	2,115	1,127	126,459	606	29,365	1,733	155,824
COLORADO	6	613	142	11,747	4	1,320	0	0	19	1,397	0	0	171	15,077	156	9,505	327	24,582
CONNECTICUT	45	5,427	34	4,913	0	0	1	3	0	0	0	0	80	10,343	92	6,365	172	16,708
D.C.	8	5,067	12	17,323	0	0	0	0	0	0	0	0	20	22,390	5	936	25	23,326
DELAWARE	42	4,498	2	23	5	1,193	4	132	1	124	0	0	54	5,970	33	2,633	87	8,603
FLORIDA	122	32,198	112	22,018	66	5,252	8	2,388	3	733	0	0	311	62,590	179	11,568	490	74,158
GEORGIA	149	19,273	31	4,670	24	3,891	0	0	1	16	0	0	205	27,850	51	2,654	256	30,504
HAWAII	0	0	0	0	3	10,960	0	0	8	2,659	0	0	11	13,619	0	0	11	13,619
IDAHO	0	0	33	3,503	31	2,461	0	0	12	520	0	0	76	6,492	83	2,072	159	8,564
ILLINOIS	440	22,725	104	12,118	28	1,416	31	2,423	50	11,706	4	54	737	50,443	436	14,995	1,173	65,438
INDIANA	229	6,656	104	4,400	67	6,036	39	355	112	3,463	0	0	551	20,909	222	6,255	773	27,164
IOWA	180	7,371	31	822	45	823	13	270	2	56	24	477	295	10,219	40	3,264	335	13,483
KANSAS	78	8,622	67	1,987	81	12,193	0	0	8	1,971	0	0	234	26,774	134	5,622	368	30,396
KENTUCKY	66	6,618	11	782	9	387	3	176	9	3,003	0	0	98	10,966	95	11,091	193	22,057
LOUISIANA	67	16,612	12	6,334	1	208	6	184	0	0	6	956	92	24,294	41	2,931	133	27,225
MAINE	32	392	10	1,388	41	1,754	0	0	0	0	0	0	83	3,534	173	2,662	256	6,196
MARYLAND	139	20,100	19	7,356	12	8,449	13	4,383	7	3,319	0	0	190	43,607	100	11,574	290	55,181
MASSACHUSETTS	50	9,723	7	442	15	2,319	1	290	0	0	0	0	73	12,773	47	2,215	120	14,988
MICHIGAN	144	15,607	78	9,394	34	2,201	0	0	12	553	0	0	268	27,755	332	17,568	600	45,323
MINNESOTA	43	9,548	29	2,228	58	8,288	2	115	4	241	2	334	138	20,754	77	6,551	215	27,305
MISSISSIPPI	82	7,661	0	0	45	3,690	0	0	0	0	0	0	127	11,351	207	6,151	334	17,502
MISSOURI	172	14,222	17	1,457	79	4,264	0	0	0	0	0	0	268	19,944	207	5,959	475	25,903
MONTANA	1	3	14	1,622	94	6,035	0	0	0	0	0	0	109	7,660	73	5,426	182	13,086
NEBRASKA	43	3,343	48	1,792	19	2,463	0	0	0	0	0	0	102	7,598	9	296	111	7,894

DOE ETHNIC AND WBE PRIME AND SUBCONTRACT AWARDS

FOR FY-88, 12 MO. SUMMARY

STATE	BLACK AMERICAN		HISPANIC AMERICAN		NATIVE AMERICAN		ASIA-INDIA AM.		ASIA-PAC AM.		OTHERS		ETHNIC TOTALS		WBE TOTALS		GRAND TOTALS	
	AWARDS No.	AMOUNT $(1000)	AWARDS No.	AMOUNT $(1000)	AWARDS No.	AMOUNT $(1000)	AWARDS No.	AMOUNT $(1000)	AWARDS No.	AMOUNT $(1000)	AWARDS No.	AMOUNT $(1000)	AWARDS No.	AMOUNT $(1000)	AWARDS No.	AMOUNT $(1000)	AWARDS No.	AMOUNT $(1000)
NEVADA	3	2,849	13	1,871	12	4,442	0	0	0	0	1	16	29	9,398	3	669	32	9,667
NEW HAMPSHIRE	13	358	2	171	10	4,413	0	0	0	0	0	0	25	4,942	68	7,230	93	12,172
NEW JERSEY	54	9,200	35	4,516	4	4,367	13	2,492	0	0	0	0	106	20,516	133	34,232	239	54,748
NEW MEXICO	0	0	111	9,109	15	812	4	616	7	302	0	0	137	10,839	40	1,463	177	12,302
NEW YORK	124	18,794	86	16,934	70	10,570	52	11,642	0	0	0	0	340	65,339	270	26,278	610	91,617
NORTH CAROLINA	77	5,995	6	271	51	3,541	9	1,811	13	158	8	1,690	164	13,466	139	10,060	303	23,526
NORTH DAKOTA	0	0	0	0	73	4,172	0	0	0	0	0	0	73	4,172	95	3,720	168	7,892
OHIO	241	33,405	14	3,587	52	11,916	0	0	1	312	13	6,072	321	55,292	101	17,966	422	73,258
OKLAHOMA	5	394	1	30	66	13,663	0	0	0	0	0	0	72	14,088	58	4,875	130	18,963
OREGON	19	478	25	3,384	33	6,487	0	0	27	5,576	0	0	104	15,844	134	6,139	238	21,983
PENNSYLVANIA	263	28,848	71	5,346	96	3,569	79	5,513	22	3,819	0	0	531	47,036	291	26,720	822	73,756
PUERTO RICO	0	0	42	49,819	0	0	0	0	0	0	0	0	42	49,819	0	0	42	49,819
RHODE ISLAND	26	5,893	10	1,152	0	0	2	391	0	0	0	0	38	7,437	28	3,496	66	10,933
SOUTH CAROLINA	89	4,505	2	178	30	2,669	0	0	10	373	0	0	131	7,666	74	5,102	205	12,568
SOUTH DAKOTA	20	2,274	22	1,999	143	5,481	0	0	0	0	13	641	206	9,695	86	2,162	292	11,857
TENNESSEE	40	4,260	0	0	27	8,860	0	0	6	1,036	0	0	73	14,156	63	4,948	136	19,104
TEXAS	64	7,452	295	55,059	22	5,604	1	73	5	415	5	922	392	69,526	251	17,666	643	87,192
UTAH	9	368	45	7,183	15	1,354	0	0	11	806	0	0	80	9,712	38	5,096	118	14,808
VERMONT	10	1,020	3	602	22	2,515	0	0	0	0	0	0	35	4,137	46	1,703	81	5,840
VIRGINIA	135	26,668	15	3,436	16	8,325	0	0	10	1,375	0	0	176	39,804	115	12,229	291	52,033
WASHINGTON	23	5,570	18	7,676	45	3,121	0	0	34	2,079	0	0	120	19,256	128	10,253	248	29,509
WEST VIRGINIA	112	7,444	2	574	22	1,874	16	1,201	12	585	0	0	164	11,679	22	2,668	186	14,287
WISCONSIN	110	1,764	83	1,739	207	9,574	99	4,182	37	335	0	0	536	17,594	275	6,888	811	24,482
WYOMING	0	0	14	624	27	1,465	0	0	1	77	0	0	42	2,166	42	2,904	84	5,070
TOTALS:	3,465	$406,021	2,946	$389,363	1,797	$216,724	382	$36,119	469	$54,869	107	$13,526	8,666	$1,116,622	6,248	$70,372	14,914	$1,186,994

TWELVE MONTH TOTALS REFLECT ADJUSTMENTS IN DATA
PREVIOUSLY REPORTED IN ID. AND KS.

08-Dec-88

NCR-30
08-Dec-88

SENATOR LAUTENBERG: If a State wanted to increase its participation in the program how would it proceed?

ANSWER: Increased participation could be achieved by setting higher goals and monitoring contractors activities to assure goal attainment.

SENATOR LAUTENBERG: Which firms in New Jersey participated in the program and how many workers participated?

ANSWER: The DBEs and WBEs which participated in FHWA's DBE program in New Jersey in FY 1988 and the first quarter of FY 1989 are shown below. The number of trainees participating in the New Jersey on-the-job training program as of July 31, 1988, was 51 (20 minorities, 12 women and 19 white disadvantaged). The number of minorities and women working on Federal- aid highway projects in New Jersey as of July 31, 1988, was 904 (776 minorities and 128 women).

New Jersey Participating DBE's and WBE's
FY 1988 and First Quarter FY 1989

Disadvantaged Business Enterprise	Women Business Enterprise
Aldrich Construction Company	A.F. Safety
All States Transportation	Alison Company
Bar Steel Corporation	Alliance Landscape
Betro Construction	Anka Painting
Boggan Brothers	Bauer, Susan Enterprises
C. S. & Sons	Bridg-it Fabricators
Carter Contracting	Chipar Land Clearing
Coastal Steel Construction	C.S. & Sons
Con-El Electric	Delta Line
Consolidated Fence	Denville Line Painting
Consolidated Steel	District Constructors
Cudeyro Construction	DMD Trucking
District Constructors	Frascella Electric
Flair Ridge Construction	Gwenie G. Construction
Freeman, J. Electric	Intercounty Paving
Gwenie G. Construction	Jersey Belle
Innovations Engineering	Jupiter Painting
JHW Contracting	Langley Transportation
Jo Jo Construction	Marlco, Inc.
Iowa Security	Minority Safety Equipment
Landscape Restoration	Nelco
Lee Trucking	New ABC Paving
Lingsun Construction	Progressive Painting
MBE Safety, Inc.	Promatech, Inc.
Mac Miscellaneous Metal, Inc.	Rail Repairs & Rentals
Northeast Commonwealth	Reilly, Thomas J.
Palmer, Elliott Paving	Rockwell, C. Industries
Power Concrete	Solar Mita Electrical
RPM Supply	Star of the Sea
Rinstar, Inc.	Universal Steel Erectors
Sarda Land Corporation	VEP Associates
Selecto Flash Safety	Valley Landscape
Solomon, Elwood Landscape	Winzinger, Robert T.
Thompson Paving, Inc.	V. L. Wright
Vedia, Carlos	
V. L. Wright	
W. R. Electric Company	

MAINTENANCE CERTIFICATION RESPONSIBILITIES

SENATOR LAUTENBERG: Each FHWA Division Administrator must annually certify whether or not a state is properly maintaining the federal-aid highway system. According to FHWA's Maintenance Review Manual of March 1987, this certification process has been criticized by outside interests. They have cited examples of unresolved maintenance deficiencies, lack of follow-up inspections and unwillingness to require states to take actions in those instances where maintenance improvements are needed. The FHWA maintenance manual goes on to note that improvements need to be made to overcome these unfavorable judgments. Since these criticisms are set out in a FHWA manual, is it correct to assume that FHWA agrees with them?

ANSWER: The March 1987 Maintenance Review Manual is an internal document which was prepared to provide maintenance guidance to FHWA personnel. The comments cited in the question were included in the manual to provide the users with historical, background information concerning FHWA's roles and responsibilities for maintenance reviews and the need for continued improvement in internal operations.

The inclusion of the criticisms in the manual was not an acknowledgement of agreement, but was instead intended as a caution to FHWA personnel that our actions and programs are subject to evaluations by other persons and groups. While the FHWA believes its maintenance monitoring program is effective, we accept the constructive criticisms of others and continue to promote program improvements whenever possible.

SENATOR LAUTENBERG: What outside interests have voiced these criticisms and how has FHWA responded to them?

ANSWER: These criticisms were voiced by both the Department of Transportation's Office of the Inspector General (OIG) and the Center for Auto Safety. The FHWA has responded with the following actions: (1) Issued the revised (March 1987) Maintenance Review Manual, (2) developed a training course entitled "Maintenance Inspections" for FHWA field engineers, (3) distributed the AASHTO Maintenance Manual and the AASHTO Manual for Bridge Maintenance to the FHWA field engineers (The revised FHWA Maintenance Review Manual was designed to be used in conjunction with these AASHTO manuals), and (4) revised FHWA policy on the maintenance inspection program and the Interstate Maintenance Guidelines. The most significant revision includes adoption of a policy to resolve deficient or unsatisfactory maintenance.

SENATOR LAUTENBERG: What improvements have been made to date? Are additional improvements planned?

ANSWER: The FHWA believes its internal processes have led to improved maintenance inspection programs at the field office level. These improvements include more effective maintenance inspection techniques, more thorough reporting, and better procedures to follow-up on resolution of maintenance deficiencies.

The FHWA is continuing to improve its maintenance monitoring program. One effort which is currently underway is the development of technical guidance on reporting for the Interstate Maintenance Guidelines (IMG). The purpose of this guidance is to improve the quality and usefulness of the reports and to reduce the volume of the material. Another effort being considered is issuance of a revised policy on the maintenance inspection program to allow the

field offices greater responsibility and flexibility in developing their maintenance inspection programs. This change could lead to more efficient use of resources, since the basic responsibility for FHWA maintenance oversight is at the division office level.

BLOCK GRANT DEMONSTRATION

SENATOR LAUTENBERG: What is the status of the demonstration program in each of the participating states?

ANSWER: All five States are currently operating under the demonstration. Implementation plans are approved in Minnesota (October 1, 1987), Texas (January 25, 1988), Rhode Island (October 4, 1988), New York (December 1, 1988), and California (April 21, 1989).

SENATOR LAUTENBERG: What specific FHWA responsibilities have been extended to the five States?

ANSWER: Section 137 of the STURRA of 1987 authorizes FHWA to test approaches for combining, streamlining, and increasing the flexibility in the administration of the Federal-aid secondary and urban program, and the non-primary portion of the bridge program. In addition, demonstration States may include eligible non-primary projects funded with minimum allocation, Interstate substitution, and excess minimum apportionment Interstate construction funds.
The demonstration has been implemented by having each State develop an agreement, similar to the Secondary Road Plan, outlining how it will administer the demonstration program. Under the demonstration, individual project level FHWA approvals are replaced by action on an annual program of projects submitted by the State. FHWA continues to be responsible for project level environmental determinations. The FHWA oversight and evaluation responsibility is fulfilled through a program of process reviews.
Three specific responsibilities extended to States by Section 137 are:

1. State may approve exceptions to design standards
2. Requirement for FHWA to make final inspections has been waived
3. Secondary, urban, and the non-primary portion of a State's bridge apportionment may be combined and administered as a single funding category.

SENATOR LAUTENBERG: What other changes, such as types of project selected or allocation of funds, have occurred or are expected from this demonstration program?

ANSWER: Based on experiences to date, we have not identified other significant changes from existing practice. Although each State has been given flexibility in the use the pooled Combined Road Plan funds, the method of allocation of funds to local governments has not been changed.

SENATOR LAUTENBERG: What benefits have been realized to date, or are expected, from this block grant demonstration program by the States and FHWA?

ANSWER: Although the amount of time operating under the demonstration has been somewhat limited, experiences to

date have been favorable. The most cited benefit has been the flexibility provided the States by the pooling of funds similar to a block grant. In addition, there have been reductions in paperwork for both the States and FHWA. Another identified benefit has been the ability of States to perform more timely project closeouts since FHWA no longer has to perform final construction inspections. We are currently in the process of visiting each of the participating States to obtain input for the interim report to Congress which is due April 2, 1990. Reports and reviews to date have not identified any problems in implementing the demonstration program.

TOLL FINANCING

SENATOR LAUTENBERG: What is the status of this toll financing pilot program?

ANSWER: The States of California, Colorado, Delaware, Florida, Georgia, Pennsylvania, South Carolina, Texas, and West Virginia were named in law or selected by the Secretary for inclusion in this program. Only six of these nine participants have formally responded to our request for a specific project designation, but we have a general sense of the intentions of the other three States (California, Colorado, and South Carolina). Pennsylvania, Delaware, and Georgia have executed the agreement called for in legislation and Pennsylvania and Delaware are in the process of initiating projects under those agreements.

SENATOR LAUTENBERG: What, if any, major problems are being encountered in constructing these toll facilities?

ANSWER: The problems of initiating a toll pilot project are similar to initiation of a normal Federal-aid project with some additional concerns:

1. The advisability of charging tolls on a road, bridge or tunnel is of concern to the public.
2. While a normal project requires consensus between Federal, State, and local officials and the affected community, a toll facility is also of concern to a toll authority, a bonding company, and bond holders. Need for the facility, its design, and the cost of building it are complicated by considerations of profit and loss, operating authority and responsibility, and relationships to adjacent land use including other free roads.

SENATOR LAUTENBERG: Where are toll roads feasible?

ANSWER: There are many situations under which toll financing of highway projects is feasible. State and local governments are finding it increasingly difficult to adequately meet all construction and maintenance needs on their highway systems in part due to the high cost of new construction and maintenance programs, budget deficits that make it necessary to limit Federal spending, and the political difficulty of continually increasing traditional highway user taxes. This revenue/needs gap has forced many States to defer new projects in favor of essential maintenance funded mainly through highway-user tax receipts.

Toll financing is likely to be most feasible in those States and localities that must accommodate growing volumes of traffic in particular corridors. This growth in travel is primarily occurring

in suburban areas which are, in many cases, ill-equipped to handle large volumes of traffic. One logical answer to the need for new limited access highway capacity in suburban areas is the construction of toll highways. Not only does toll financing remove such facilities from competition for other limited State resources and, thus, allow for earlier completion of these and other needed projects, it also is fully consistent with the "user pays" philosophy.

SENATOR LAUTENBERG: What are the pros and cons of toll road financing?

ANSWER: Toll financing has several advantages and disadvantages that are well-documented. Among the advantages commonly cited, tolls which are levied on specific vehicles or specific routes provide the most precise form of pay-as-you-go financing. By contrast, motor-fuel taxes are broadly based and apply to all vehicles on all roads. Because of the large variation in costs and use from one road to another, financing of roads using motor-fuel taxes means that some road users will pay more than their share of costs while others pay less.

Second, toll financing often allows completion of highway projects and the resulting economic benefits to occur sooner than might be possible through existing Federal and State programs. This is possible because complete funding is available upon initiation of the project through the issuance of bonds. Toll financing avoids the need to "accumulate" funding within a particular program in order to fund high priority projects.

Third, toll financing typically moves maintenance expenses "off-budget." The typical financial agreement for a toll facility requires annual inspection and maintenance reports to protect users and bondholders. Toll rates are generally established at a level that provides the necessary funds for the inspection and maintenance.

A final, though not often used, advantage is that tolls can be used as a method of congestion pricing, encouraging users to make more efficient choices of route or mode.

Among the chief drawbacks to toll financing is the interest cost of borrowing funds. In addition, the cost of toll-collection imposes extra expenses that are not incurred on a tax-supported project.

URBAN COLLECTORS

SENATOR LAUTENBERG: What is the overall condition of New Jersey's urban collectors? Of the Nation's?

ANSWER: New Jersey's urban collector system ranks below the national average in regards to pavement condition. Nationally, 13 percent of the urban collector system is in poor condition (PSR less than or equal to 2.0) and 16 percent is in excellent condition (PSR greater than or equal to 4.0). In New Jersey, 15 percent of urban collector mileage is reported as being in poor condition while 13 percent is reported as being in excellent condition.

CORRIDOR SAFETY IMPROVEMENT PROJECT - NORTH BRUNSWICK, NEW JERSEY

SENATOR LAUTENBERG: As you know, I am a strong supporter of the Route 1 (Corridor Safety Improvement Project in vicinity of North Brunswick, New Jersey) project. Please give me a brief status on progress, environmental concerns and obligations to date. Please give details by location.

ANSWER: The 1988 appropriations act authorized $50 million and appropriated $4.702 million for this project. The 1989 appropriations act appropriated another $28 million. The $32.702 million appropriations have been allocated for work at several locations on the Route 1 project. Details of the project by location follow:

1. Widen US-1 from Adams/Cozzens Lane to Route 130 including bridge over Northeast Amtrak Corridor: An environmental assessment has been completed. A request for a finding of no significant impact was submitted last year, and, upon resolution of certain wetlands issues, should be approved. No demonstration funds have been obligated to date. Preliminary engineering ($800,000) and right-of-way ($15,000,000) are expected to be authorized (obligated) this fiscal year. Estimated cost to complete is about $57 million.

2. Route 1/130 interchange: An environmental assessment is underway with an expected completion date in April or May 1989. No demonstration funds have been obligated to date. An additional $600,000 of preliminary engineering is expected to be authorized later this fiscal year. Early next fiscal year, $20 million of right-of-way acquisition should be ready for authorization. Estimated cost to complete exceeds $50 million.

3. Route 1/Scudders Mill Road interchange: This project will replace the existing signalized intersections at Route 1/Princeton-Plainsboro Road and Route 1/Scudders Mill Road with a grade separated interchange at Scudders Mill Road. Work is beginning, but no demonstration funds obligated. An environmental assessment is expected to be completed in June 1990. Estimated cost to complete is $37 million.

BURLINGTON COUNTY BRIDGE

SENATOR LAUTENBERG: The Burlington County Bridge Commission is currently considering a proposal to construct a bridge between Burlington City and Bucks County. In FHWA's opinion, what is the Commission's authority to construct such an interstate bridge?

ANSWER: The Burlington County Bridge Commission evidently purchased the rights to construct such a bridge which had originally been granted by consent of Congress to one Cheesman and others under the Act of May 21, 1926, 44 Stat. 588. To our knowledge, this consent has not been withdrawn. The FHWA should not decide the question of the Commission's authority to construct such a bridge, as this decision involves the laws and policies of two States and conflict in Federal laws.

65 MPH Speed Limits on Rural Interstates

SENATOR LAUTENBERG: We spent a portion of last year's hearing on speed limit and enforcement. As you know, I oppose the increase in speed limit on rural Interstates to 65 mph. Even though New Jersey has no such routes, the safety factors and the environmental factors related to the increased speed limit caused me to sponsor legislation to eliminate 65 mph speed limit. How do you feel about the current speed limit and its enforcement?

ANSWER: The Department would ideally like to see the Federal Government completely removed from the speed limit issue. States are clearly in the best position to determine what speed limit should apply along a particular highway under predominant conditions. States are also responsible enough to determine the appropriate level of speed limit enforcement along any section of highway which will maximize both traffic movement and safety. If, however, the Federal Government does remain involved in the speed limit issue, the Department continues to propose amendment of the existing statutes so that States only be required to annually certify that speed limits in the State are posted in accordance with congressionally determined maximums. All monitoring and reporting of both vehicle speeds and police enforcement efforts would be eliminated.

TRUCK ACCESS

SENATOR LAUTENBEG: We talked about [Truck Access Rules] last year; I would like for your to give me an up-date on this matter. Are there any safety problems associated with this? See pp 270-271 of last year's hearings.

ANSWER: The FHWA issued a Notic eof Proposed rulemaking on December 30, 1988 at 53 Federal Register 53006. It proposes the shortest feasible route up to five road miles from the National Network be provided for access to terminal s or facilities for food, fuel, repairs and rest. Exception to this is provided for specific safety reasons. The proposed rule also includes a definition of a "terminal" and includes two options for evaluating access requests for terminals beyond the five mile limit. The comment period fo the proposed rule ends on May 1.

A total of 20 comments were received in response to our request for data on accident experience in the Advanced Notice of Proposed Rulemaking. None of the comments provided information that would suggest that the larger vehicles authorized under the Surface Transportation Assistance Act of 1982 are involved in accidents at a rate that is greater than that of vehicles prevalent prior to 1982. In fact, if any change could be detected, the predominance of change is toward accident rate reduction for the larger vehicles. However, we would like to reaffirm our commitment that safety is paramount and should not be compromised in providing access.

The TRB reasonable access study is close to completion. As directed in the 1988 Appropriations Conference Committee Report, a final reasonable access rule will not be issued until after the TRB report is completed.

INTELLIGENT VEHICLE/HIGHWAY TECHNOLOGY

SENATOR LAUTENBERG: Your budget discusses the matter of intelligent highways and the possibility of in-vehicle navigation as a means of moving traffic safely and expeditiously. Please tell me more about this technology, such as are there any prototypes and at what point do you see implementation of anything like this?

ANSWER: Advanced forms of in-vehicle displays of traffic information and route guidance are already being tested in Japan and the Federal Republic of Germany. Two large European joint ventures referred to as "PROMETHEUS" and "DRIVE" go beyond this to the capability of intelligent vehicle/highway systems and the pursuit of standardization of the entire technology.

The United States "Pathfinder" project, a cooperative effort among the Federal Highway Administration, the California Department of Transportation, and General Motors Corporation, is a step toward the next generation of motorist navigation and information systems. These systems will provide substantial improvement in the quality of traffic and trip-related information provided to the driver in terms of its timeliness, relevancy to the individual driver, and level of detail available. The Pathfinder project will demonstrate a system in which motorists will have ready access to up-to-date congestion information on both their primary and alternate routes. This will allow an informed route-choice decision to be made so that the motorist does not simply become part of an existing congestion problem. Use of this system by a sufficient portion of vehicles will tend to optimize traffic flow in a corridor or area by making maximum use of capacity on all available routes.

The FHWA is developing a long-term Research, Development, and Technology Transfer ($RD\&T^2$) program on advanced motorist information systems for improved traffic operations. The program is intended to focus primarily on these systems plus assist in seeding a national research program which is expected to have similarities in scope to the European PROMETHEUS and DRIVE projects and Japanese activities mentioned above. The research conducted under this long-term program will investigate significant issues related to the eventual deployment and operation of in-vehicle motorist information and navigation systems. Laboratory, simulator, and controlled field studies will constitute the major portion of the design and development work. Included are research on human factors design principles for vehicle-based displays and controls, development of experimental hardware and software for fixed and real-time pre-trip planning, in-vehicle navigation/motorist services, and emergency information systems.

The Department of Transportation will shortly be submitting a report to Congress on U.S. and foreign intelligent vehicle/highway technology.

SENATOR LAUTENBERG: Are you familiar with the work of TRANSCOM (Transportation Operations Coordinating Committee/NY-NJ)? Please tell us what you think of their efforts. Is there a Federal role? In the area of traffic operations, are you aware of any New Jersey projects of note or special interest?

ANSWER: We are very familiar with the work of TRANSCOM. In the New York City region, TRANSCOM provides a valuable service to its member agencies by serving as an information clearinghouse for events which can cause major traffic disruptions, such as major traffic incidents, construction projects, and special events. Member

agencies are supplied with real-time information on these events through a computerized alpha-numeric paging system. TRANSCOM also develops and maintains interjurisdictional plans for handling the traffic impacts of these events. TRANSCOM also provides a means of opening and keeping the lines of communication open between various agencies which must work together to solve regional transportation problems. Organizations similar to TRANSCOM would be useful in other large urban areas where roadways are the responsibility of several jurisdictions (the Washington, DC, metropolitan area would be a good example).

Federal highway planning funds from New York and New Jersey contributed a total of $314,000 for the first year of operation of TRANSCOM. In the second year of operation, New Jersey continued to use planning funds for its contribution, while New York's contribution came entirely from State funds. Contributions to the third year of operation have not yet been made. For future TRANSCOM-like organizations in other urban areas, Federal funding should also be made available for startup expenses, then gradually reduced as member agencies begin to derive benefits.

We are familiar with two significant projects in the New York City region. The first project is a case study of traffic operations improvements in the George Washington Bridge corridor, which is being performed by a transportation engineering consultant using various computerized traffic simulation techniques. This case study is being fully funded by FHWA as part of an administrative research contract, "Analysis of Complex Congested Corridor Locations." When this study is complete, recommendations will be made to local officials on desirable traffic operations improvements in the corridor.

The second project, which is just recently underway, is an effort by the Port Authority of New York and New Jersey to use automatic vehicle identification (AVI) techniques of toll collection from buses using the Lincoln Tunnel between New Jersey and Manhattan. Use of AVI techniques will allow buses to pass through the toll plaza without stopping (a bill would be sent each month to buses identified as using the tunnel) and will thus increase capacity of and reduce congestion in the bus lanes approaching the tunnel. It is our understanding that the Port Authority is also examining the possibility of using AVI techniques for trucks using the Goethals Bridge between New Jersey and Staten Island.

EXEMPT PROGRAMS

SENATOR LAUTENBERG: What was the obligation rate for those programs outside the ceiling? List for years 1986, 1987, and 1988 the amount obligated.

ANSWER: Following are the obligations by fiscal year for each of the programs exempt from the Federal-aid highways obligation limitation:

FUND	FY 1986	FY 1987	FY 1988
Bridge Acceleration	(2,169,633)	1,081,450	(483,506)
Alaska Highway	15,996,075	(929,615)	4,926,424
Emergency Relief	158,200,000	71,777,661	111,582,222

Illinois Usable Segments Demo. (131b)	7,918,079	12,110,064	3,199,488
Minimum Allocation	987,567,941	252,591,643	960,391,671
State of Ark Gap Closing Demo. (131j)	64,832,185	36,810	57,326
Union Station	2,753,709	1,296,695	1,494,802
Woodrow Wilson Bridge	13,824,196	(2,445,579)	10,063,559
Section 149 Demos.	...	41,188,755	72,209,481
Section 149c Demos. Minimum Allocation	...	8,209,944	8,501,048
Bridges Over Dams	0	0	144,858
Total	1,248,922,552	384,917,828	1,172,087,373

SENATOR LAUTENBERG: What is the estimated amount of obligations for exempt programs in fiscal years 1989 and 1990 (assuming current law in 1990)?

ANSWER: Following are the estimated obligations by fiscal year assuming current law:

FUND	FY 1989 Estimate	FY 1990 Estimate
Bridge Acceleration	$55,000,000	$23,000,000
Alaska Highway	5,000,000	5,000,000
Emergency Relief	100,000,000	100,000,000
Illinois Usable Segments Demo. (131b)	2,000,000	0
Minimum Allocation	832,000,000	950,000,000
State of Art Gap Closing Demo. (131j)	0	0
Union Station	0	0
Woodrow Wilson Bridge	4,000,000	0
Section 149b Demos.	166,000,000	166,000,000
Section 149c Demos. Minimum Allocation	12,000,000	12,000,000
Bridges Over Dams	0	0
Total	$1,176,000,000	$1,256,000,000

SENATOR LAUTENBERG: Is the Administration asking to include Section 149 projects under the obligation ceiling?

ANSWER: Yes, all funding for the Section 149 projects would be included under the obligation ceiling. Currently, the only portion of the funding that is subject to the ceiling is the approximately $106.8 million, referred to as Section 149(d) funding, which is derived annually from drawdowns from the earmarked discretionary funds. Under the budget proposal, both the $165.8 million authorized by Section 149(b) for the 152 specified projects and the $12.2 million authorized by Section 149(c) to provide a minimum level of funding for each State would also be subject to the ceiling.

RAIL-HIGHWAY CROSSINGS, HAZARD ELIMINATION

SENATOR LAUTENBERG: Update the data found on pages 304 and 305 of Senate Hearings 100-853, Part I on the Rail-Highway Crossings program and the Hazard-Elimination program for fiscal years 1986 through 1988.

ANSWER: Tables showing the apportionments and obligations for these programs for fiscal years 1986 through 1988 follow:

STATE	APPORTIONMENTS FY 1986-1988	OBLIGATIONS FY 1986-1988
ALABAMA	$10,123,970	$4,527,853
ALASKA	7,692,898	6,436,507
ARIZONA	4,907,253	4,003,631
ARKANSAS	7,480,456	5,033,747
CALIFORNIA	31,834,767	14,413,815
COLORADO	6,854,811	11,709,804
CONNECTICUT	3,199,571	2,251,382
DELAWARE	1,561,224	1,947,755
FLORIDA	15,018,246	13,445,963
GEORGIA	14,273,225	8,478,264
HAWAII	1,240,970	0
IDAHO	4,532,205	3,954,271
ILLINOIS	25,593,201	19,570,853
INDIANA	15,943,072	22,289,517
IOWA	11,876,764	10,338,285
KANSAS	15,069,213	17,421,775
KENTUCKY	8,375,542	10,072,233
LOUISIANA	9,886,658	9,454,542
MAINE	2,929,436	2,384,417
MARYLAND	4,748,601	5,169,914
MASSACHUSETTS	6,202,364	4,466,090
MICHIGAN	17,380,262	15,839,174
MINNESOTA	13,152,969	7,621,192
MISSISSIPPI	6,949,879	8,887,873
MISSOURI	12,989,381	12,460,838
MONTANA	5,175,284	4,661,814
NEBRASKA	8,592,611	5,245,471
NEVADA	2,512,831	2,630,289
NEW HAMPSHIRE	2,037,220	1,893,406
NEW JERSEY	8,455,804	9,292,503
NEW MEXICO	3,727,060	1,061,621
NEW YORK	19,553,543	5,066,836
NORTH CAROLINA	12,561,497	8,078,309

NORTH DAKOTA	8,794,660	5,164,646
OHIO	20,613,591	6,755,309
OKLAHOMA	10,174,022	7,246,311
OREGON	6,825,068	6,012,805
PENNSYLVANIA	18,553,574	8,819,352
RHODE ISLAND	1,394,548	2,188,240
SOUTH CAROLINA	8,513,265	8,397,979
SOUTH DAKOTA	5,465,953	6,176,751
TENNESSEE	9,954,373	6,407,103
TEXAS	33,465,341	33,173,882
UTAH	3,807,060	3,260,572
VERMONT	1,982,427	666,169
VIRGINIA	8,536,106	4,293,881
WASHINGTON	9,214,349	9,488,103
WEST VIRGINIA	5,268,770	4,607,967
WISCONSIN	12,434,374	14,872,977
WYOMING	2,864,277	2,383,916
DIST. OF COL.	$686,900.00	247,595
PUERTO RICO	2,380,254	0
AMERICAN SAMOA	0	0
GUAM	0	0
N. MARIANAS	0	0
VIRGIN ISLANDS	0	0
TOTAL	$493,361,700	$390,273,503

HAZARD ELIMINATION PROGRAM

STATE	APPORTIONMENTS FY 1986-1988	OBLIGATIONS FY 1986-1988
ALABAMA	$9,341,513	$7,952,238
ALASKA	2,613,430	3,023,868
ARIZONA	7,028,888	8,646,834
ARKANSAS	6,320,898	5,458,477
CALIFORNIA	44,998,031	49,874,880
COLORADO	7,298,223	4,693,685
CONNECTICUT	5,802,782	3,256,831
DELAWARE	2,613,430	3,071,644
FLORIDA	19,427,562	19,802,621
GEORGIA	12,547,654	7,048,336
HAWAII	2,613,430	1,566,024
IDAHO	3,852,481	4,599,390
ILLINOIS	23,385,358	28,205,912
INDIANA	12,113,342	13,972,202
IOWA	8,522,943	7,501,635
KANSAS	8,264,702	9,510,903
KENTUCKY	8,353,373	9,535,783
LOUISIANA	8,890,983	10,113,102
MAINE	2,613,430	2,798,709
MARYLAND	7,903,906	5,766,250
MASSACHUSETTS	10,632,876	4,010,154
MICHIGAN	19,231,439	21,018,852
MINNESOTA	10,926,619	18,624,096
MISSISSIPPI	6,530,869	8,702,713
MISSOURI	12,067,554	9,609,380
MONTANA	3,651,792	4,562,077

NEBRASKA	5,623,094	3,996,896
NEVADA	2,771,740	3,257,525
NEW HAMPSHIRE	2,613,430	2,640,724
NEW JERSEY	13,339,968	14,748,478
NEW MEXICO	3,922,679	2,084,314
NEW YORK	32,756,515	30,854,461
NORTH CAROLINA	12,818,789	17,479,792
NORTH DAKOTA	3,903,332	3,801,753
OHIO	21,627,700	18,146,123
OKLAHOMA	8,648,144	9,949,187
OREGON	7,941,200	13,724,712
PENNSYLVANIA	23,491,890	27,544,799
RHODE ISLAND	2,613,430	1,810,922
SOUTH CAROLINA	7,258,740	2,130,481
SOUTH DAKOTA	3,551,920	3,576,688
TENNESSEE	10,373,381	19,572,619
TEXAS	32,869,326	20,128,595
UTAH	4,029,232	4,309,210
VERMONT	2,613,430	1,623,791
VIRGINIA	11,024,877	12,420,618
WASHINGTON	9,507,223	11,149,306
WEST VIRGINIA	4,387,504	6,767,253
WISCONSIN	11,368,527	11,423,013
WYOMING	2,613,430	2,286,405
DIST. OF COL.	2,613,430	3,741,470
PUERTO RICO	5,628,701	6,269,727
AMERICAN SAMOA	1,306,715	998,242
GUAM	1,306,715	982,640
N. MARIANAS	1,306,715	1,006,942
VIRGIN ISLANDS	1,306,715	671,700
TOTAL	$522,686,000	$532,024,979

FEDERAL AID PROJECT SHARE

SENATOR LAUTENBERG: List the Federal Aid Highway projects and the Federal share for each.

ANSWER: Following is a list of the major Federal-Aid Highway program categories, and the corresponding Federal share for each:

Program Category	Federal Share
Interstate Construction	90%
Interstate 4R	90%
Interstate Substitution	85%
Consolidated Primary	75%
Rural Secondary	75%
Urban	75%
Bridge Replacement	80%
Hazard Elimination	90%
Rail-Highway Crossings	90%
Territorial Highways	100%
Federal Lands	
Forest Highways	100%
Indian Reservation Roads	100%
Parkways & Parkroads	100%
Public Lands	100%

MINIMUM ALLOCATION

SENATOR LAUTENBERG: Provide the estimated amount of "minimum apportionment" available to each State in fiscal year 1990, (under current law under the Administration's proposal)?

ANSWER: Based on current unobligated balances and data available as of March 31, 1989, the estimated minimum allocation amount available to each State is as follows (based on estimated FY 1989 carryover plus estimated FY 1990 Minimum Allocation Apportionment):

STATE	ESTIMATED AMOUNT ($ in 000'S)
ARIZONA	53,728,816
ARKANSAS	43,368,659
CALIFORNIA	246,012,079
FLORIDA	72,068,000
GEORGIA	97,468,184
ILLINOIS	2,216,000
INDIANA	151,357,310
KENTUCKY	2,008,000
MAINE	593,000
MICHIGAN	24,201,000
MISSISSIPPI	33,081,841
MISSOURI	68,877,339
NORTH CAROLINA	76,783,000
OHIO	216,003,624
OKLAHOMA	72,205,081
OREGON	4,841,000
SOUTH CAROLINA	69,205,860
TENNESSEE	82,801,317
TEXAS	431,073,195
VIRGINIA	21,849,187
WISCONSIN	62,655,338
TOTAL	1,832,397,830

SENATOR LAUTENBERG: For the record provide the amount of minimum apportionment provided each State for the past three fiscal years.

ANSWER: The minimum allocation apportionment by State for FY 1987 thru FY 1989 is shown below:

STATE	FY 1987	FY 1988	FY 1989
ARIZONA	14,341,875	9,986,271	0
ARKANSAS	14,935,596	14,442,230	28,621,158
CALIFORNA	69,116,463	71,490,780	78,378,002
FLORIDA	29,641,331	22,763,026	90,821,023
GEORGIA	26,404,866	38,214,530	87,515,537
INDIANA	58,008,232	77,349,223	106,807,602
KENTUCKY	1,568,422	0	3,138,680
MAINE	0	0	1,955,796

MICHIGAN	29,004,463	28,828,078	35,279,832
MISSISSIPPI	4,477,485	9,580,936	25,832,911
MISSOURI	15,147,743	10,763,223	53,205,402
NORTH CAROLINA	57,979,383	67,456,375	116,554,265
OHIO	63,643,589	81,682,478	110,076,079
OKLAHOMA	44,505,296	50,806,549	53,898,867
OREGON	0	0	7,954,867
SOUTH CAROLINA	26,552,808	13,273,511	0
TENNESSEE	13,767,065	13,553,331	50,397,680
TEXAS	223,602,263	253,931,521	302,197,272
VIRGINIA	0	6,794,865	0
WISCONSIN	32,563,159	32,973,588	63,308,104
TOTAL	725,260,039	803,890,515	1,215,943,077

ESTIMATED UNOBLIGATED BALANCE OF MINIMUM APPORTIONMENT FUNDS

SENATOR LAUTENBERG: List by State the amount of unobligated minimum apportionment funds at the end of fiscal year 1989.

ANSWER: It is very difficult to estimate the unobligated balance on a State-by-State basis since each State determines the use of its funds. Using projected total obligations outside the obligation ceiling together with the unobligated balances as of March 31, 1989, we estimate the unobligated balance of minimum allocation funds at the end of fiscal year 1989, by state, as follows:

STATE	ESTIMATED UNOBLIGATED BALANCE 9-30-89 ($000's)
ARIZONA	14,633
ARKANSAS	18,079
CALIFORNIA	107,355
FLORIDA	72,068
GEORGIA	30,335
ILLINOIS	2,216
INDIANA	71,514
KENTUCKY	2,008
MAINE	593
MICHIGAN	24,201
MISSISSIPPI	14,625
MISSOURI	34,275
NORTH CAROLINA	76,783
OHIO	120,370
OKLAHOMA	27,183
OREGON	4,841

SOUTH CAROLINA	23,145
TENNESSEE	45,818
TEXAS	177,165
WISCONSIN	11,793
TOTAL	879,000

SENATOR LAUTENBERG: Provide for the record by State and amount where the States have obligated minimum apportionment funds by category.

ANSWER: The following table shows how the States have obligated minimum allocation funds on the Federal-aid highway systems as of March 31, 1989:

Use of Minimum Allocation Funds
By Federal-Aid Highway Systems
Cumulative Obligations FY 1983 - FY 1989

as of March 31, 1989

(dollars in thousands)

State	Interstate	Primary	Secondary	Urban	Other	Total
Arizona	0	0	0	0	285	285
Arkansas	0	36,127	6,368	7,284	0	49,779
California	6,033	158,387	2,723	182,121	2,009	351,273
Florida	14,681	61,618	4,613	1,742	4,340	86,994
Georgia	0	102,114	177	0	0	102,291
Illinois	26,720	83,948	8,666	12,166	3,954	135,454
Indiana	37,495	165,908	65,740	81,649	13,719	364,511
Kentucky	0	718	203	409	78	1,408
Maine	0	0	0	0	981	981
Michigan	0	115,711	15,203	91,709	301	222,924
Mississippi	0	15,860	0	0	0	15,860
Missouri	0	42,877	740	14,883	2,146	60,646
North Carolina	20,625	150,732	1,578	109,985	3,168	286,088
Ohio	143,915	101,502	68,379	69,191	6,326	389,313
Oklahoma	11,460	166,585	11,486	42,429	0	231,960
South Carolina	0	7,547	0	3,048	926	11,521
Tennessee	0	33,153	0	0	0	33,153
Texas	365,709	769,152	14,443	88,437	4,882	1,242,623
Virginia	0	1,076	871	4,849	0	6,796
Wisconsin	2,361	216,702	178	2,018	3,524	224,783
Total	628,999	2,229,717	201,368	711,920	46,639	3,818,643

DISCRETIONARY PROGRAM LEVELS

SENATOR LAUTENBERG: Provide the discretionary program amounts authorized for fiscal years 1985 through 1990, and the amounts obligated for each program for those years (for 1989, amounts to date.)

ANSWER: Following are the authorizations and obligations for fiscal years 1985 through 1990 for the discretionary programs:

	Authorizations					
	1985	1986	1987	1988	1989	1990*
Interstate Construction Discretionary	300,000,000	287,100,000	300,000,000	285,148,781	279,837,124	300,000,000
Interstate 4R Discretionary	0	0	165,239,802	190,099,187	186,558,082	200,000,000
Interstate Substitution Discretionary	175,000,000	173,426,250	152,464,701	175,402,144	172,134,810	185,000,000
Bridge Discretionary	200,000,000	200,000,000	185,894,779	213,861,585	209,877,842	225,000,000
	675,000,000	660,526,250	803,599,282	864,511,697	848,407,858	910,000,000

* Does not reflect any set-aside for Section 149 Demonstration Projects.

	Obligations				
	1985	1986	1987	1988	1989 **
Interstate Construction Discretionary	479,824,301	779,782,594	676,192,933	1,469,808,184	53,827,176
Interstate 4R Discretionary	0	0	165,192,933	190,099,187	82,808,585
Interstate Substitution Discretionary	174,947,166	173,456,250	103,700,545	182,928,130	73,011,388
Bridge Discretionary	206,272,847	215,910,372	188,910,372	211,667,900	58,859,537
	861,044,314	1,169,149,216	1,133,996,783	2,054,503,401	268,506,686

** Obligations as of March 31, 1989.

SENATOR LAUTENBERG: Provide for the record by program the amount of discretionary funding that was reduced to fund section 149 149 programs (demonstration and priority projects).

ANSWER: The amounts deducted to fund Section 149 demonstration projects for fiscal year 1989 are listed below:

DISCRETIONARY ACCOUNT	AMOUNT DEDUCTED TO FUND F.Y. 1989 SECTION 149 PROJECTS (PL 100-17)
INTERSTATE CONSTRUCTION	65,645,103
INTERSTATE TRANSFER	12,402,690
INTERSTATE 4R	13,527,437
BRIDGE	15,230,046
TOTAL	106,805,276

EMERGENCY RELIEF OBLIGATIONS

SENATOR LAUTENBERG: Update the table on page 314 of Senate Hearings Report 100-853, Part 1 for fiscal years 1985 through 1988.

ANSWER: A table showing the obligations is attached:

EMERGENCY RELIEF
Obligations
($millions)

	FY '85 Obl.	FY '86 Obl.	FY '87 Obl.	FY '88 Obl.
ALABAMA	(0.1)	0.0	0.0	(0.2)
ALASKA	(0.3)	0.0	3.9	1.8
ARIZONA	9.6	3.3	(0.3)	(0.3)
ARKANSAS	0.5	0.4	0.0	1.7
CALIFORNIA	20.1	74.5	21.6	22.6
COLORADO	1.6	5.3	0.0	(2.2)
CONNECTICUT	4.7	0.8	(0.3)	0.0
DELAWARE	0.0	0.0	0.0	0.0
DIST. OF COL.	0.0	(0.1)	0.0	0.0
FLORIDA	0.0	0.8	1.0	0.0
GEORGIA	0.0	0.0	1.1	(0.2)
HAWAII	1.1	(0.5)	0.0	(0.5)
IDAHO	0.3	0.9	1.2	7.3
ILLINOIS	0.0	0.0	0.0	0.0
INDIANA	0.0	0.0	0.0	0.0
IOWA	0.0	0.0	0.0	0.0
KANSAS	0.2	0.6	0.0	0.4
KENTUCKY	1.1	(0.8)	(0.2)	-0.2
LOUISIANA	0.8	2.4	(0.1)	0.0
MAINE	0.0	0.0	4.9	4.4
MARYLAND	0.1	(0.1)	(1.0)	(0.1)
MASSACHUSETTS	0.0	0.0	0.0	2.0
MICHIGAN	0.0	1.4	5.9	0.8
MINNESOTA	0.0	0.0	0.0	0.9
MISSISSIPPI	4.4	(0.3)	0.4	0.0
MISSOURI	0.0	0.0	0.0	0.0
MONTANA	(0.1)	0.4	0.0	0.0
NEBRASKA	0.9	0.1	0.0	0.0
NEVADA	4.0	2.7	1.6	(0.2)

NEW HAMPSHIRE	0.0	0.0	0.0	0.0
NEW JERSEY	0.0	0.0	0.0	0.0
NEW MEXICO	0.0	0.0	0.0	0.0
NEW YORK	0.0	0.0	0.0	20.0
NORTH CAROLINA	7.3	0.2	0.0	(0.1)
NORTH DAKOTA	0.0	0.0	0.0	0.0
OHIO	0.0	0.0	0.0	0.0
OKLAHOMA	0.8	0.9	8.4	2.0
OREGON	0.9	3.9	0.0	0.0
PENNSYLVANIA	0.0	3.4	0.2	0.0
RHODE ISLAND	0.0	0.0	0.0	0.0
SOUTH CAROLINA	0.0	0.0	0.0	0.0
SOUTH DAKOTA	1.5	0.3	1.2	1.4
TENNESSEE	2.1	0.2	(0.2)	0.0
TEXAS	0.5	(0.3)	0.0	0.0
UTAH	4.7	7.8	3.3	0.9
VERMONT	0.6	0.0	0.0	0.0
VIRGINIA	0.0	5.8	1.5	0.6
WASHINGTON	3.3	6.5	6.0	39.2
WEST VIRGINIA	0.8	25.4	8.2	1.2
WISCONSIN	0.0	0.0	0.0	0.0
WYOMING	0.0	0.0	0.0	0.0
PUERTO RICO	0.1	1.1	4.0	3.6
TERRITORIES	0.0	0.0	0.0	0.0
Subtotals:	71.5	147.0	72.3	106.8
BIA	1.4	0.5	0.4	0.9
BLM	0.4	0.1	0.1	0.0
FOREST SERVICE	11.2	10.4	8.6	5.0
PARK SERVICE	2.2	0.2	0.1	0.0
Subtotals:	15.2	11.2	9.2	5.9
TOTALS:	86.7	158.2	81.5	112.7

RAIL-HIGHWAY CROSSING DEMONSTRATION PROJECTS

SENATOR LAUTENBERG: Please update the tables contained on pages 323, 324 and 325 of Senate Hearings Report 100-853, Part 1.

ANSWER: The requested tables follow:

ALLOCATIONS TO RAIL-HIGHWAY CROSSING DEMONSTRATION PROJECTS BY FISCAL YEAR
(in thousands of dollars)

Project	FY 74-84	FY 1985	FY 1986	FY 1987	FY 1988	FY 1989	Total
Wheeling, WV	$ 600	$ -----	$ -----	$ -----	$ -----	$ -----	$ 600
Augusta, GA	1,232	4,840	957	2,000	1,188	840	11,057
Anoka, MN	2,915	-----	-----	-----	(17)	-----	2,898
Blue Island, IL	230	-----	-----	-----	-----	-----	230
Carbondale, IL	21,304	500	2,871	-----	1,425	420	26,520
Dolton, IL	585	-----	-----	-----	-----	-----	585
E. St. Louis, IL	8,661	-----	-----	-----	-----	-----	8,661
Springfield, IL	5,119	2,875	1,400	7,325	1,425	3,362	21,506
Hammond, IN	14,370	-----	-----	-----	-----	-----	14,370
Lafayette, IN	7,800	7,000	5,264	3,500	-----	-----	23,564
New Albany, IN	2,326	-----	-----	-----	-----	-----	2,326
Terre Haute, IN	7,000	-----	-----	-----	-----	(1,000)	6,000
Metairie, LA	1,702	-----	-----	-----	-----	-----	1,702
Pine Bluff, AR	755	5,900	957	-----	1,900	841	10,353
Brownsville, TX	4,170	1,500	2,392	750	712	420	9,944
Greenville, TX	9,500	-----	-----	-----	-----	-----	9,500
Sherman, TX	-----	-----	-----	-----	-----	-----	-----
Lincoln, NE	10,779	1,800	2,871	2,000	1,140	1,177	19,767
Elko, NV	42,530	-----	-----	-----	-----	-----	42,530
TOTALS:	$141,578	$24,415	$16,712	$15,575	$ 7,773	*$ 6,060	* $212,113

( ) - Denotes deallocation of funds

* In addition to the figures in the table, $500,000 was allocated for a rail relocation planning study in Bryan-College Station, Texas, to implement Section 354 of the FY 1989 DOT Appropriations Act.

RAIL-HIGHWAY CROSSING DEMONSTRATION PROJECTS
(dollars in thousands)

Project	Description	Total Estimated Cost	Demonstration Funds Allocated
Wheeling, WV	Rail relocation in downtown	$ 600	$ 600 (a)
Augusta, GA	Rail relocation involving three railroads	128,900	11,057
Anoka, MN	Grade separation	3,100	2,898
Blue Island, IL	Grade separation	242	230 (a)
Carbondale, IL	Depress rail line in downtown	88,600	26,520
Dolton, IL	Grade separation	616	585 (a)
E. St. Louis, IL	Seven grade separations and minor rail relocation	28,700	8,661
Springfield, IL	Rail relocation southwest of city, grade separations in city	32,900	21,506
Hammond, IN	Rail relocation within downtown area	18,600	14,370
Lafayette, IN	Rail relocation within downtown area	94,200	23,564
New Albany, IN	Minor rail relocation	2,600	2,326
Terre Haute, IN	Grade separation	5,800	6,000
Metairie, LA	Rail consolidation and grade separation	19,000	1,702
Pine Bluff, AR	Five grade separations and minor rail relocation	19,900	10,353

Project	Description	Total Estimated Cost	Demonstration Funds Allocated
Brownsville, TX	Rail relocation to loop around city	$ 39,000	$ 9,944
Greenville, TX	Grade separation and minor rail relocation	14,800	9,500
Sherman, TX	--------- WITHDREW FROM PROGRAM ----------		
Lincoln, NE	Three grade separations and minor rail relocations	37,000	19,767
Elko, NV	Rail relocation to loop around downtown	44,800	42,530
		$ 579,358	$ 212,113(b)

(a) Project not under construction by September 30, 1985. In accordance with Section 163(p) of the Federal-Aid Highway Act of 1973, as amended, no further demonstration funds will be provided to the project.

(b) In addition to the figures in the table, $500,000 was allocated for a rail relocation planning study in Bryan-College Station, Texas, to implement Section 354 of the FY 1989 DOT Appropriations Act.

INTERSTATE COST ESTIMATE

SENATOR LAUTENBERG: For the record provide the latest Interstate Substitute Cost Estimate for both highways and transit with apportionment factors.

ANSWER: The following is a table showing the additional substitute highway and transit funds (Federal funds) required and the associated apportionment factors. The split between highways and transit is based on the 1988 Interstate Substitution Cost Estimate and the table reflects the fiscal year 1989 apportionments and allocations of substitute highway and transit funds. A further revision to the factors can be expected when the 1989 Interstate Substitution Cost Estimate is prepared in accordance with the provisions of the Surface Transportation and Uniform Assistance Act of 1987.

(PRELIMINARY)
ESTIMATED FEDERAL FUNDS REQUIRED TO COMPLETE SUBSTITUTE HIGHWAY AND TRANSIT PROJECTS AND APPORTIONMENT FACTORS FOR DISTRIBUTION OF 75 PERCENT (HIGHWAY)/ 50 PERCENT (TRANSIT) OF THE FISCAL YEAR 1990 AUTHORIZATION *

STATE	WITHDRAWAL AREA	ESTIMATED ADDITIONAL FUNDS REQUIRED TO COMPLETE SUBSTITUTE HIGHWAY PROJECTS	HIGHWAY APPORTIONMENT FACTORS (PERCENT)	ESTIMATED ADDITIONAL FUNDS REQUIRED TO COMPLETE SUBSTITUTE TRANSIT PROJECTS	TRANSIT APPORTIONMENT FACTORS (PERCENT)
ARIZONA	Tucson	0	0.000	0	0.000
CALIFORNIA	Sacramento	0	0.000	298,838	0.043
	San Francisco	37,325,286	1.625	28,825,523	4.292
COLORADO	Denver	51,562	0.002	0	0.000
CONNECTICUT	Bolton to Killingly	205,134,834	8.931	624,935	0.093
	Hartford-New Britain	139,239,584	6.062	3,101,948	0.462
DISTRICT OF COLUMBIA	Washington	60,834,334	2.648	143,934	0.021
GEORGIA	Atlanta	42,140,796	1.835	0	0.000
ILLINOIS	Chicago	168,936,669	7.355	97,439,733	14.507
INDIANA	Indianapolis	17,480,283	0.761	0	0.000
IOWA	Waterloo	77,972,016	3.395	2,031,618	0.303
MARYLAND	Baltimore	107,193,102	4.667	216,885,129	32.290
	Bowie to Millersville	35,900,712	1.567	0	0.000
	Washington	2,976,900	0.130	0	0.000
MASSACHUSETTS	Boston	26,340,970	1.147	12,888,977	1.919
	Fall River to Providence	5,066,097	0.220	0	0.000
MINNESOTA	Duluth	187,560	0.008	0	0.000
	Minneapolis-St. Paul	43,537	0.002	0	0.000
NEBRASKA	Omaha	0	0.000	0	0.000
NEW JERSEY	New York City	16,395,770	0.714	1,892,533	0.282
	New York City to Trenton	121,986,151	5.311	2,050,014	0.305
	Philadelphia	0	0.000	0	0.000
NEW YORK	Albany	0	0.000	133,188	0.020
	New York City	791,747,087	34.469	254,196,243	37.845
OHIO	Cleveland	36,043,759	1.569	14,670,147	2.184
OREGON	Portland	30,937,062	1.347	2,829,543	0.421
	Salem	0	0.000	0	0.000
PENNSYLVANIA	Philadelphia	0	0.000	0	0.000
	Pittsburgh	8,322,164	0.362	0	0.000
RHODE ISLAND	Rhode Island	266,136,423	11.586	16,723,279	2.490
TENNESSEE	Memphis	98,467,163	4.287	16,945,527	2.523
VIRGINIA	Washington	0	0.000	0	0.000
	TOTALS	2,296,963,127	100.000	671,671,100	100.000

* Amounts are in Federal funds.

HIGHWAY DATA

SENATOR LAUTENBERG: For the record, provide the latest donor/donee results by States.

ANSWER: The following table contains the latest published donor/donee ratios.

State	FY-1987	STATE	FY-1987
Alabama	1.34	Montana	2.16
Alaska	5.82	Nebraska	1.24
Arizona	1.17	Nevada	1.36
Arkansas	0.89	New Hampshire	1.25
California	0.91	New Jersey	1.03
Colorado	1.42	New Mexico	1.18
Connecticut	2.57	New York	1.18
Delaware	1.37	North Carolina	0.94
D. C.	5.08	North Dakota	1.94
Florida	0.84	Ohio	0.90
Georgia	0.84	Oklahoma	0.96
Hawaii	4.60	Oregon	1.22
Idaho	1.87	Pennsylvania	1.49
Illinois	1.22	Puerto Rico	-
Indiana	0.99	Rhode Island	2.80
Iowa	1.30	South Carolina	1.07

Kansas	1.23	South Dakota	1.88
Kentucky	1.01	Tennessee	0.95
Louisiana	1.25	Texas	0.89
Maine	0.99	Utah	1.74
Maryland	1.54	Vermont	2.27
Massachusetts	2.27	Virginia	0.92
Michigan	0.99	Washington	1.24
Minnesota	1.55	West Virginia	1.94
Mississippi	0.97	Wisconsin	0.88
Missouri	0.91	Wyoming	1.65

United States 1.16

EXCLUSION OF TRUST FUND INTEREST

SENATOR LAUTENBERG: The Administration again proposes excluding interest earned by the Highway Trust Fund in deriving the Fiscal Year 1990 and out year funding levels. Why doesn't FHWA count interest for supporting higher obligation ceiling?

ANSWER: The proposed FY 1990 budget is "deficit neutral," that is, the obligation level is equal to projected tax receipts, without considering interest. The expenditure of treasury interest payments for highway programs would place an additional burden on the general taxpayer at a time when there is a government-wide effort to reduce the Federal deficit. Interest accrued in the trust fund is available for use at a later time, as the deficit problem is resolved.

SENATOR LAUTENBERG: Aren't you (or OMB) not including interest to support a higher obligation ceiling simply to help overall budget deficit calculations?

ANSWER: Under the terms of Gramm-Rudman-Hollings Act, all receipts and expenditures of the Federal Government are included in the calculation of the Federal deficit. Whether the deficit targets specified in law are met depends on the balance between total receipts and total expenditures of the government, including trust funds. Even the off-budget Social Security Trust Fund, although exempt from sequestration, is included in the deficit calculation. The cash balances of trust funds do not figure at all in the calculation of the deficit.

Also, the amount of the cash balance in the Highway Trust Fund can be misleading. At the end of FY 1988, there was nearly $9.0 billion in the Highway Account of the Trust Fund, but commitments against the balance totaled almost $32 billion. So while there is a large cash balance, if the program had stopped at the end of last year, taxes would have had to be collected for another year and a half to pay off old bills.

REVENUE ESTIMATES

SENATOR LAUTENBERG: Gasoline tax receipts going into the Highway Trust Fund increase from $9.3 billion in Fiscal Year (FY) 1988, to an estimated $9.5 billion in FY 1989 and remain at $9.5 billion in FY 1990. Explain

why the revenue growth rate does not continue to increase from FY 1989 to FY 1990.

ANSWER: The estimated increase in receipts in FY 1989 over FY 1988 follows an even larger actual increase from FY 1987 to FY 1988. This revenue growth is the result of changes brought about by the Tax Reform Act of 1986, which, among other things, moved the point of taxation for gasoline to the major terminal level. Hence, revenues in FY 1988 and FY 1989 are expected to increase because of reduced tax evasion and a one-time revenue increase attributable to the payment of taxes earlier in the distribution chain. Our projection for FY 1990 and later years shows growth in gasoline tax receipts resuming the more normal pattern based on the offsetting influences of demographic and economic factors and continued improvements in fuel efficiency.

SENATOR LAUTENBERG: Diesel fuel tax receipts going into the Highway Trust Fund are estimated to increase from $2.8 billion in FY 1988 to $3.4 billion in FY 1989, then fall to $3.2 billion in FY 1990, followed by steady growth of about 3 percent per year through FY 1994. What accounts for the expected large increase in FY 1989, the drop in revenue in FY 1990, and the steady growth thereafter?

ANSWER: Diesel fuel tax receipts are expected to increase more than usual in FY 1989 due to changes in the point of taxation brought about by the Omnibus Budget Reconciliation Act (OBRA) of 1987. These changes were designed to reduce the opportunity for tax evasion by reducing the number of taxpayers and the number of tax-free exchanges of diesel fuel. Therefore, the 1989 estimate anticipates increased receipts due to reduced tax evasion (about $250 million). While this source of increased revenue is expected to continue after FY 1989, other factors related to tax legislation caused estimated revenues to be unusually high in FY 1989. First, the shift in point of taxation caused a one-time revenue increase due to accelerated payment of taxes. The second factor is that, under provision of the OBRA, users of diesel fuel entitled to an exemption from payment of the tax were required to buy the fuel tax-paid and later apply for a refund. The Technical and Miscellaneous Revenue Act (TRMA) of 1988 restored the up-front exemption for most off-road users, effective January 1, 1989, but for the April 1 to December 31 period the provisions of the OBRA were in effect. Part of the FY 1989 revenue increase is, therefore, a one-time revenue increase attributable to the lag between the time the tax is paid and the time reimbursements of refunds and credits are made. In FY 1990, the revenue estimate is adjusted downward to reflect reimbursements continuing to be processed for tax payments made in FY 1989. As a result of the TRMA, certain taxpayers will no longer be required to pay the tax up-front. Factors explaining steady growth in diesel fuel tax revenues include the substantial shift from gasoline to diesel engines in trucks, and a relatively strong environment for trucking.

SENATOR LAUTENBERG: Does FHWA have an estimate of the amount of tax receipts lost due to fuel tax cheating?

ANSWER: Based upon information provided in testimony before Congress and provided by State fuel tax officials, FHWA has estimated that evasion of fuel taxes ranges from the conservative estimates of Treasury at $450 million per year to as much as $1.5 billion per year. Recent changes in the point-of-collection legislation have helped reduce the opportunity for evasion, but we continue to be concerned about evasion of Federal fuel excise taxes. There have been recent indications from Federal and State fuel tax investigators that new evasion schemes are emerging from tax-free transfers made at major terminals. We understand that investigations are going on in the New York/New Jersey area again and in Houston. In addition, we are concerned that the recent legislative change made in the Technical and Miscellaneous Revenue Act of 1988, which restored a number of tax-free sales to users of diesel fuel, will reopen the door to evasion schemes involving exemptions for tax-free sales.

BID-PRICE INDEX

SENATOR LAUTENBERG: For the record provide by State annual price trends for Federal-Aid Highway Construction for Fiscal Years 1986, 1987 and 1988.

ANSWER: The annual price trends for Federal-Aid Highway Construction are compiled by calendar year. For calendar years 1986, 1987 and 1988, the bid-price indices by State, compiled from contract awards for Federal Aid construction contracts greater than $500,000 (other than those for the Secondary Highway System) are shown below:

REGION	STATE	COMPOSITE BID-PRICE INDEX*		
		1986	1987	1988
1	Connecticut	319.0	255.4	221.1
	Maine	229.5	209.0	209.4
	Massachusetts	177.1	347.7	403.3
	New Hampshire	165.3	167.1	178.1
	New Jersey	215.8	264.7	230.7
	New York	286.4	286.0	425.2
	Rhode Island	179.4	210.7	252.9
	Vermont	230.8	216.1	191.9
	Puerto Rico	136.8	178.5	174.4
2	Delaware	170.4	137.7	153.4
	Dis. of Columbia	164.5	196.6	181.7
	Maryland	210.2	232.7	201.6
	Pennsylvania	172.8	204.7	221.5
	Virginia	156.7	173.2	185.2
	West Virginia	116.7	191.1	141.7
4	Alabama	162.2	176.8	157.3
	Florida	181.0	176.9	180.9
	Georgia	233.0	216.6	218.6
	Kentucky	158.5	170.8	168.9
	Mississippi	153.6	162.1	159.0
	North Carolina	187.5	175.0	191.3
	South Carolina	169.5	232.4	202.4
	Tennessee	153.6	152.2	144.2
5	Illinois	161.6	165.6	158.2
	Indiana	175.5	154.8	169.2
	Michigan	174.4	168.1	176.9
	Minnesota	177.7	179.2	171.2
	Ohio	182.6	229.3	287.7
	Wisconsin	150.7	170.7	157.9
6	Arkansas	158.1	157.6	153.3
	Louisiana	145.3	129.2	133.3

	New Mexico	199.5	192.8	159.9
	Oklahoma	148.5	156.5	144.3
	Texas	155.5	135.6	124.2
7	Iowa	164.2	162.9	172.0
	Kansas	179.2	190.1	204.5
	Missouri	179.1	157.6	154.8
	Nebraska	139.9	133.0	149.4
8	Colorado	171.4	164.1	177.1
	Montana	198.9	160.6	219.1
	North Dakota	154.1	151.7	180.3
	South Dakota	175.7	148.9	148.1
	Utah	170.4	149.5	177.4
	Wyoming	143.7	134.8	125.4
9	Arizona	221.6	208.1	201.1
	California	205.1	211.6	236.4
	Hawaii	317.6	198.5	282.1
	Nevada	184.3	201.9	184.9
10	Alaska	118.2	*0.0	*0.0
	Idaho	153.7	173.3	172.5
	Oregon	192.5	215.5	230.0
	Washington	156.2	145.6	171.1

*Represents 1977 values equalling 100.

FHWA ORGANIZATION AND PERSONNEL

SENATOR LAUTENBERG: Update the chart on page 321 of Senate Hearings Report 100-853, part 1.

ANSWER:

	Estimated Number of Personnel		Estimated* Associated Costs (Dollars in thousand)	
	FY 1989	FY 1990	FY 1989	FY 1990
Office of the Admin.	16	16	1,155	1,210
Office of Chief Counsel	37	37	2,126	2,227
Office of Public Affairs	4	4	151	159
Office of Program Review	5	5	299	313
Office of Civil Rights	15	15	909	952
Associate Administrator for Policy	80	80	5,515	7,326
Associate Administrator for Research, Development and Technology	143	143	32,906	33,988
Associate Administrator for Right-of-Way and Environment	59	59	3,617	3,789
Associate Administrator for Engineering and Program Development	188	188	26,389	23,341
Associate Administrator for Safety and Operations	60	60	3,842	4,024

Associate Administrator for Motor Carrier	14	14	1,606	1,055
Associate Administrator for Administration	403	403	55,010	56,587

*Note: Associated costs represent General Operating Expenses including salaries, fringe benefits, travel, contract funds, etc.

The Workers' Compensation Program

SENATOR LAUTENBERG: Briefly describe the status and results of the audits on The Workers' Compensation Program.

ANSWER: While information on the Workers' Compensation Program (WCP) was gathered from the Federal Highway Administration for the audit of this program, the audit was directed at the Department of Transportation (DOT) as a whole. The Office of the Inspector General issued its report on November 24, 1987. This report contains no findings addressing FHWA. As a result of the report, greater attention and visibility have been given to the WCP within FHWA and throughout DOT. FHWA represents less than 1 percent of the entire WCP billing costs for DOT. The Office of Workers' Compensation projects that government-wide the WCP cost will rise 9.7 percent for the billing period ending June 1989. For the same period, the WCP projected cost for DOT will rise only 2.7 percent. This increase is due in part to rising medical costs. The audit has had no financial impact on FHWA.

OFFICE OF THE INSPECTOR GENERAL AUDITS

SENATOR LAUTENBERG: Briefly describe the status and result of the audits on Recovery of Bid-rigging Damage.

ANSWER: In May 1987 the FHWA reissued a September 3, 1982, policy memorandum on determining settlement credit to Federal-aid projects. This memorandum served as a guide to the FHWA, Texas State Department of Highways and Public Transportation (TSDHPT) and the State Attorney General (SAG) in establishing a procedure to separate and credit settlement costs. As a result of a working agreement between the three agencies, the SAG provides copies of settlement agreements and separated cost figures to the TSDHPT. Eligible costs are then credited to appropriate Federal-aid projects. The TSDHPT has completed its recovery of bid-rigging restitution. The last settlement credit was made 1 1/2 years ago.

SENATOR LAUTENBERG: Briefly describe the status and results of the audits on the Highway Related Safety Grant Program.

ANSWER: The results of the audit follows:

Audit Results: The OIG found that while the FHWA portion of the States' Section 402 program was being adequately reviewed for compliance with legislative and regulatory requirements in the two States surveyed, individual project monitoring should focus more attention on the expeditious and efficient use of program funds. Internal control weaknesses found were not considered to be material enough to warrant reporting to the

Secretary; and, based on FHWA's corrective actions, the report has been closed.

1. Recommendation: Review the nonactive projects identified in the audit and take appropriate action to have the States (a) place unused funds under subagreement, and (b) withdraw and reprogram unneeded funds on completed projects.

   Status of Corrective Action: All projects have been reviewed and actions are being taken to expedite their completion or transfer the funds to higher priority needs.

2. Recommendation: Establish controls to periodically identify States with large unexpended fund balances, and perform project evaluations in those States to ensure timely action to complete the planned projects or reprogram the unused funds.

   Status of Corrective Action: States with large unexpended fund balances have been identified and actions are underway between the FHWA field offices, affected State highway safety agencies, and the National Highway Traffic Safety Administration to (a) close out completed or inactive projects so unused funds can be reprogrammed, and (b) monitor project status on a systematic basis. Periodic program reviews are planned in the future to assure these controls are established and working.

SENATOR LAUTENBERG: Briefly describe the status and results of the audits on the Bridge Inspection Program?

ANSWER: The status and results of the Office of Inspector General (OIG) audits are as follows:

Report on Audit of the National Bridge Inspection Program in the Federal Highway Administration (Report No. AS-FM-8-007, dated January 15, 1988)

Audit Results: The OIG found that while the FHWA has taken action to strengthen its controls for managing the National Bridge Inspection Program, further improvements are needed to assure that bridges are adequately inspected. The OIG considers FHWA's corrective actions taken or planned responsive to the report's findings and recommendations, and accordingly has closed the report. Below are the recommendations from the audit along with the status of corrective action for each.

Recommendation: Revise the National Bridge Inspection Standards (NBIS) to include requirements for underwater inspections.

Status of Corrective Action: The Final Rule with changes to the NBIS was published in the August 26, 1988, Federal Register with an effective date of October 25, 1988.

Recommendation: Seek changes to the NBIS or AASHTO and FHWA bridge inspection manuals to assure that States have adequate internal controls for conducting bridge inspections; properly supervise bridge

inspectors; conduct periodic management reviews to promote compliance with established State bridge inspection procedures; and prepare complete, accurate and uniform inspection reports (including documenting time spent inspecting each bridge).

Status of Corrective Action: All of the actions contained in this recommendation except for documenting the time actually spent inspecting a bridge are contained in either the NBIS, the AASHTO Manual for Bridge Maintenance Inspection or FHWA bridge inspection manuals. The FHWA does not believe that requiring inspectors to document time spent inspecting each bridge is needed to administer the National Bridge Inspection Program.

Recommendation: Emphasize to the States the need to conduct thorough and well-organized bridge inspections.

Status of Corrective Action: The FHWA has continually provided this emphasis since the program began. It has been specifically emphasized in all FHWA Headquarters reviews made during the past 3 years.

Recommendation: Require the States to document bridge inspections files with data concerning all corrective actions taken on deficiencies reported by bridge inspectors.

Status of Corrective Action: The current NBIS requires that the States document corrective action taken as the result of bridge inspection recommendations.

Recommendation: Monitor corrective actions taken in FHWA's Region 1 by New York for accomplishing formal load rating analysis and assure that South Carolina complies with the load rating requirements of the standards.

Status of Corrective Action: The FHWA has been working on a day-to-day basis with these two States to ensure that they load rate all of their bridges.

Recommendations: Review FHPM 6-4-3-1 or other appropriate guidance to include more specific guidelines on what division offices should cover when reviewing a State's bridge inspection program.

Status of Corrective Action: Appropriate FHPM's have been revised to support the recommendation.

Recommendation: Require the division offices to prepare written reports and obtain written responses from States on deficiencies identified by FHWA's annual reviews.

Status of Corrective Action: This is normal accepted practice for all FHWA reviews of State program. The FHWA agrees that findings should be followed up and resolved in every case.

Recommendation: Establish procedures to assure that the Regions' and Divisions' monitoring of States' bridge inspection programs are periodically evaluated.

Status of Corrective Action: These procedures are part of the current ongoing FHWA bridge program reviews. The revisions to appropriate FHPM's contain requirements for specific evaluations and follow-ups of NBIS reviews.

SENATOR LAUTENBERG: Briefly describe the status and results of the audits on the Motor Carrier Safety Assistance Program.

ANSWER: - Final Audit Report: Motor Carrier Safety Assistance Program (MCSAP) (Report No. AS-FH-8-006, dated December 17, 1987)

Audit Results: The Office of Inspector General (OIG) found that while the FHWA had generally established adequate procedures for managing the programs, further improvements are needed. The OIG agreed with the corrective action taken or planned by the FHWA and that the action is responsive to the report's recommendations. The OIG's recommendations and status of FHWA's corrective action are as follows:

1. Recommendation: The FHWA obtain a legal opinion to determine if the "good faith" policy of awarding implementation grants meets the statutory requirements contained in the STAA of 1982, and if the legal opinion supports that policy, the FHWA should establish a reasonable time limit for the states to achieve compliance with prescribed requirements.
   Status of Corrective Action: The FHWA's Chief Counsel issued a legal opinion supporting the practice of permitting the use of "good faith effort" in the approval of State Enforcement Plans (SEPs). The FHWA is considering to use 3 years as a reasonable time limit for a state's "good faith" effort. We have requested our field offices to comment on the proposal.
2. Recommendation: Reemphasize and assist the States in meeting FHWA's national goal of achieving at least 25 percent vehicle inspections during off-peak hours and ensure that SEPs include information to determine the extent to which States are making off-peak inspections.
   Status of Corrective Action: The FHWA (1) has emphasized the need for off-peak inspections at bi-regional meetings and preplanning conferences attended by all participating MCSAP states, (2) suggested the minimum 25 percent goal for SEPs and, (3) has addressed this area in the technical review panel evaluations of the FY 1988 SEPs, and review and evaluation portions of the MCSAP Grants Management Course presented at

the Transportation Safety Institute (TSI).

3. Recommendation: The FHWA determines reasons for variances in state vehicle out-of-service rates, and uses this information to establish procedures for evaluating a state's performance under the MCSAP.
Status of Corrective Action: The FHWA has suggested that States perform at a minimum, a quarterly roadside driver/vehicle inspection effort utilizing the same location and established time periods. Data resulting from these efforts will be used as a benchmark to analyze the States' actual out-of-service rates. The FHWA also has issued written policy to its field staff concerning these random inspection techniques.

4. Recommendation: That the FHWA establish procedures to review monthly internal financial reports to ensure that unneeded MCSAP funds are withdrawn and distributed in a timely manner.
Status of Corrective Action: The FHWA reviews monthly internal financial reports for incorrect project classifications and obligations, and to follow up on final voucher submissions. The FHWA also updates daily a report which tracks unobligated balances on a state-by-state basis.

SAFETY REGULATION ENFORCEMENT AND THE FEDERAL MOTOR CARRIER SAFETY PROGRAM

SENATOR LAUTENBERG: Please evaluate the accuracy of this conclusion in terms of your ability to implement the Motor Carrier Safety Act of 1984, the Commercial Motor Vehicle Safety Act of 1986 and the Truck and Bus Safety Regulatory Reform Act of 1988.

ANSWER: We believe that FHWA is effectively managing its motor carrier functions and responsibilities with our available resources, but we need additional resources to meet the goals of rating all unrated interstate motor carriers, ensuring compliance with the safety regulations, and meeting the increasing demands of enforcement.

Legislative Mandates

The FHWA completed the reissuance of the safety regulations required by the Motor Carrier Act of 1984. We met every deadline for the Commercial Driver's License (CDL) Program in the Commercial Motor Vehicle Safety Act of 1986. We also intend to continue to meet the deadlines of the Truck and Bus Safety Regulatory Reform Act of 1988.

Safety Ratings

The FHWA has added 150 motor carrier safety specialists to the field staff since 1986 to conduct SRs on unrated carriers. We have requested an additional 150 safety specialists (and 35 support personnel) for FY 1990. With these additional staff, the FHWA expects to achieve its goal of rating all unrated interstate motor carriers in 1993.

In FY 1988, the FHWA conducted approximately 25,000 SRs and 4,700 CRs. We have also investigated approximately 2,200 complaints and took enforcement action against 800 carriers for not complying with Federal safety regulations. Approximately $2 million in fines during FY 1988 were collected as a result of these enforcement actions.

We expect the number of enforcement cases to increase proportionally as we rate more carriers. We also face expanded responsibilities due to the elimination of the commercial zone exemption and the imposition of new requirements such as the drug testing provisions.

SENATOR LAUTENBERG: Please evaluate how you are strengthening your enforcement posture and program.

ANSWER: Since the beginning of FY 1989, FHWA has taken significant steps toward improving the effectiveness of Motor Carrier Safety enforcement efforts. These include:

* the implementation of an abbreviated enforcement report;
* the initiation of a micro-computer based enforcement tracking system;
* the nationwide implementation of the Selective Compliance and Enforcement Program;
* the revision of the Motor Carrier Safety Enforcement Course;
* the streamlining of enforcement handling procedures by using regional motor carrier safety managers in lieu of regional counsel for settling routine enforcement cases;
* the development of improvements in the enforcement areas relating to increased penalty assessments and enhanced use of the enforcement authorities provided by the Motor Carrier Safety of 1984, including finalizing the procedures for "shutting down" imminently hazardous operations.

SENATOR LAUTENBERG: Does either FHWA or NHTSA have an innovative and comprehensive program to help educate the motoring public on the dynamics of truck safety?

ANSWER: Currently, there are no initiatives underway in FHWA or National Highway Traffic Safety Administration (NHTSA) to help educate the motoring public on the dynamics of truck safety. A number of states, however, are developing public information materials on truck safety (targeted at all motorists).

Under a Supplemental Grant, a group of states oversaw a contract to develop model testing materials for use by the states when testing truck and bus drivers under the CDL Program. The materials also include a driver's manual for individuals "to study" before taking the test. The manual

addresses topics such as: proper signaling, vehicle control, truck stopping distances, and road conditions. The testing materials (including the manual) have been distributed to each state.

The FHWA does support special initiatives such as the efforts of the interjurisdictional work groups formed to identify specific actions to improve traffic safety on the Capital Beltway. Last fall, the work groups recommended that state, local, and industry representatives take specific steps to increase public awareness of traffic safety on the Beltway. They are compiling a catalog on information and materials available through the public and private sectors for use as part of a more comprehensive set of actions.

SENATOR LAUTENBERG: What is FHWA doing to further the public's knowledge of such concerns as driving with trucks on the road, blind spots affecting truck safety, and truck stopping distances? Are any of the Section 402 funds of Title 23 used for this purpose? Has with FHWA or NHTSA assessed the adequacy of non-federal efforts to achieve this same purpose?

ANSWER: FHWA has no major initiatives underway to further the public's knowledge of driving with trucks on the road, blind spots affecting truck safety, etc.

FHWA is funding a truck safety demonstration project in New Jersey. The New Jersey Office of Highway Traffic Safety will develop and distribute materials which highlight the truck accident problem and identify construction zones and other conditions that require caution by the driver.

Under a CDL Supplemental Grant, a group of States, oversaw a contract to develop model testing materials for use by the States when testing truck and bus drivers under the CDL Program. The materials also include a driver's manual for individuals "to study" before taking the test. The manual addresses topics such as: proper signaling, vehicle control, truck stopping distances, and road conditions. The testing materials (including the manual) have been distributed to each State.

SENATOR LAUTENBERG: Because your mission is in part to reduce the number of commercial motor vehicle accidents, what is FHWA doing to examine what can be done to improve the performance of the motoring public, which is responsible for many accidents involving commercial motor vehicle?

ANSWER: In addition to the initiative cited above, the FHWA supports special initiatives such as the efforts of the interjurisdictional work groups formed to identify specific actions to improve traffic safety on the Capital Beltway. Last fall, the work groups recommended that State, local and industry representatives take specific steps to increase public awareness of traffic safety on the Beltway. They are compiling a catalog on information and materials available through the public and private sectors for use as part of a more comprehensive set of actions.

EXEMPTIONS FROM MOTOR CARRIER SAFETY REGULATIONS

SENATOR LAUTENBERG: Does FHWA agree with OTA's conclusion?

ANSWER: We believe that all vehicles should be in safe operating condition and that all truck and bus drivers should

operate in a safe manner. Whether there are exemptions to the Federal safety regulations is a separate question which is influenced by decisions on resource allocation and historic separation of Federal and State powers. For example, the Congress directed the exemption for interstate school bus operations in the Motor Carrier Safety Act of 1984.

SENATOR LAUTENBERG: What has FHWA done to eliminate exemptions from safety regulations?

ANSWER: Last year, the FHWA repealed the major exemption to the rules--the commercial zone exemption. We modified those requirements earlier this year to reflect the grandfather provisions of the Truck and Bus Safety and Regulatory Reform Act of 1988.

Through MCSAP and the efforts of the Safety Review Panel, we are working closely with the States to increase the compatibility of State and Federal safety requirements. When States adopted Federal safety requirements, some exempted certain motor carriers from all or portions of the safety requirements (beyond those exemptions provided in the Federal requirements).

We carefully analyze all requests for exemptions or waivers from the motor carrier safety regulations -- such as waivers we have allowed from the CDL requirements or the log book requirements (to allow use of on-board recorders). We request and consider public comments before making changes to the regulations.

Our experience, particularly in the CDL program, shows that many exemptions or waivers are requested because of a lack of understanding or confusion about the safety requirements and what they may mean to the group or individual asking for an exemption. Therefore, we are increasing our attention on technical assistance efforts when we develop new rules or revise existing ones.

SENATOR LAUTENBERG: What is the estimated number of heavy vehicles and motor carriers operating in intrastate services that may not be subject to FHWA safety regulations?

ANSWER: Based on the best available data, we estimate that there are approximately 200,000 intrastate motor carriers and 1.4 million heavy vehicles (trucks and buses over 26,000 pounds GVWR) operating in intrastate services that are not directly subject to the Federal Motor Carrier Safety Regulations (FMCSRs). However, most vehicles and carriers are indirectly subject to the FMCSRs because States regulate intrastate carriers and they have or are developing motor carrier regulations that are comparable to the FMCSRs.

OVERWEIGHT TRUCKS

SENATOR LAUTENBERG: Has FHWA conducted any studies to determine the extent of the overweight truck problem?

ANSWER: Yes. Weigh-in-motion (WIM) studies conducted between 1984 and 1988 in nine States and sponsored by FHWA illustrate the magnitude of the overweight truck and scale avoidance problems. WIM data showed that there were more overweight trucks than previously had been detected with static scales. This indicates truckers are among those going around open static scales as we found in one study or are waiting until the scales are closed. Moreover, some WIM data showed that about one third of the vehicle gross weights exceeded 80,000 pounds; about one half of the tandem-axle weights exceeded 34,000 pounds; and about one half of

the vehicles exceeded Federal bridge formula weight limits. Taking into consideration that some overweight truckers have permits, we estimate 10 to 20 percent of all truckers are operating illegally overweight.

SENATOR LAUTENBERG: What enforcement authority does FHWA currently have to penalize overweight trucks? Is additional enforcement authority needed?

ANSWER: The FHWA has no authority to issue truck overweight citations. Only States are empowered to enforce overweight truck regulations. Section 141 of 23 U.S.C. requires each State to certify that it is enforcing truck size and weight regulations. If a State fails to certify or fails to enforce its size and weight laws, the Secretary has the authority to reduce Federal-aid funds apportioned to the State by 10 percent.

No additional enforcement authority is believed to be necessary.

SENATOR LAUTENBERG: Does FHWA consider overweight trucks to be a major problem? If so, how does FHWA plan to deal with this problem?

ANSWER: We consider this to be a significant problem for which we are working on a three-point plan: (1) we are evaluating weigh-in-motion (WIM) equipment in a number of States for accuracy and cost and promoting WIM equipment for States' use; (2) we have awarded a contract to the State of Florida to evaluate scale avoidance by trucks either bypassing an open scale or stopping and waiting until a scale is closed; and (3) we have are developed and would like to test a statistically valid prototype State weighing plan similar to the work done in Wisconsin. We believe State enforcement agencies with state-of-the-art WIM equipment and a good weighing program can significantly reduce the number of overweight trucks.

COMMERCIAL DRIVER'S LICENSE PROGRAM

SENATOR LAUTENBERG: How many states have passed required legislation to implement new testing and licensing programs required by 4/1/92?

ANSWER: As of April 14, fourteen States passed the legislation required to implement new testing and licensing programs for commercial motor vehicle drivers. These are:

Arkansas	California
Georgia	Indiana
Mississippi	Montana
Tennessee	New Mexico
Virginia	Utah
Michigan	Wyoming
South Dakota	Maryland

Most of the remaining States have either introduced legislation or expect to this year, and the other few States plan to introduce the needed legislation next year.

SENATOR LAUTENBERG: How many other states will introduce legislation this year?

ANSWER: Thirty-four states and the District of Columbia have either introduced or will introduce legislation this calendar year.

These states are Alabama, Alaska, Arizona, Colorado, Connecticut, Delaware, District of Columbia, Florida, Hawaii, Illinois, Indiana, Kansas, Louisiana, Maine, Massachusetts, Minnesota, Missouri, Nebraska, Nevada, New Hampshire, New Jersey, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, Texas, Vermont, Washington, West Virginia and Wisconsin. Fourteen states have already passed legislation.

SENATOR LAUTENBERG: When will the remaining states introduce legislation?

ANSWER: The states of Iowa and Kentucky will introduce legislation in calendar year 1990.

SENATOR LAUTENBERG: What actions has FHWA initiated to assist the states in passing the necessary legislation?

ANSWER: We are helping the States meet the deadline several ways:

-completed all rulemakings and created the information clearinghouse on schedule;

-worked with State representatives to develop model State enabling legislation and commercial driver license (CDL) testing materials;

-developed and distributed a checklist of items needed to meet the testing and licensing requirements to all States through the American Association of Motor Vehicle Administrators and our field offices;

-contracted with the National Conference of State Legislatures to develop and distribute a "State Legislative Report" to its members that has information on the CDL program and related State requirements; and

-on request, review proposed State legislation and provide regulatory interpretations to help States draft legislation and develop programs that meet the standard.

SENATOR LAUTENBERG: What actions has FHWA initiated to assist the states in resolving the administrative issues they must address to implement the new testing and licensing program?

ANSWER: In addition to the items discussed above, we are taking the following actions to help States resolve the administrative issues they must address to implement the new testing and licensing program:

-included options for programs, such as third party testing or substitutes for the required skills test, which can help States alleviate potential burdens created by the new program;

-on request, review proposed State legislation and provide regulatory interpretations to help States draft legislation and develop programs that meet the standard; and

-allowed States the option to waive farmers and firefighters from CDL requirements.

SENATOR LAUTENBERG: Which states will have difficulty in meeting the April 1, 1992 deadline?

ANSWER: We expect all the States to meet the April 1, 1992 deadline.

SENATOR LAUTENBERG: In your estimation, will the states be able to test and license all commercial drivers by April 1, 1992?

ANSWER: The FHWA expects all the States will be able to test and license all commercial drivers by April 1, 1992.

SENATOR LAUTENBERG: The Commercial Motor Vehicle Safety Act of 1986 required that standards for testing drivers and issuing a Federal license be in effect July 15, 1988. What is the status of the agency's effort to meet deadlines in the Act?

ANSWER: The FHWA met or exceeded all of the commercial drivers license deadlines imposed by the Commercial Motor Vehicle Safety Act of 1986. Final rules have been published on the single license, notification, driver disqualification and penalty provisions which:

-- establish minimum standards for State testing and licensing of commercial drivers; and
-- establish .04 percent blood alcohol concentration (BAC) as the threshold for enforcing the "driving under the influence of alcohol" sanctions in the Act.

The Commercial Driver's License Information System (CDLIS), the clearinghouse for drivers issued a CDL, became operational on January 1, 1989.

The Office of Motor Carriers also has several initiatives to assist States in their efforts to comply with the new requirements. These include:

-- work with American Association of Motor Vehicle Administrators and individual States to develop testing, licensing, and other materials to implement the CDL program,
-- work with the National Conference of State Legislators in the completion of a State Legislative Report to assist States in the development of CDL legislation which is in compliance with the Federal standards, and
-- provide States with interpretations of the requirements of the Act so that they may prepare appropriate implementing CDL legislation, regulations, and procedures.

COMMERCIAL DRIVER'S LICENSE REQUIREMENTS

SENATOR LAUTENBERG: How many commercial drivers have been notified by FHWA that they are suspected of holding multiple licenses?

ANSWER: Since 1987, FHWA has notified 30,000 commercial drivers suspected of holding multiple licenses based on information available through the National Law Enforcement Telecommunicatons System. We began this effort soon after the former President signed the Commercial Motor Vehicle Safety Act of 1986. Our primary purpose was to alert drivers about the new requirements.

SENATOR LAUTENBERG: What specific actions has FHWA taken to assure that drivers who submit statements of compliance with the single license requirement have in fact surrendered their excess licenses?

ANSWER: We generally accepted the statements of the drivers without any followup. The Commercial Driver's License Information System is operational and, as more states participate, it will be the most effective means of preventing a driver from obtaining multiple licenses.

SENATOR LAUTENBERG: What penalties have been assessed to date against commercial drivers identified as holding excess licenses?

ANSWER: The FHWA has disqualified drivers as the main way of penalizing people who violate the CDL requirements.

Since the beginning of FY 1988, FHWA has disqualifed more the 3,000 drivers for violations of the CDL requirements. This penalty prohibits the employment of the driver in interstate commerce.

Some states fine drivers who have more than one license or violate other CDL requirements, for exmple, Idaho has collected $111,300 for violations during a special CDL enforcement effort in full 1987.

SAFETY OF LARGER TRUCKS

SENATOR LAUTENBERG: Do you agree with OTA's conclusion that safety is being compromised by allowing larger vehicles on the Interstate System?

ANSWER: We do not believe that safety has been compromised by allowing larger vehicles on the Interstate System. Most truck safety studies have concluded that there is no evidence of large truck operations degrading overall highway safety.

SENATOR LAUTENBERG: What is the largest vehicle width and length that FHWA permits to use the Interstate Highway System?

ANSWER: The Surface Transportation Assistance Act of 1982 (STAA) required the States to establish a uniform maximum width of 102 inches except in the case of Hawaii that was permitted to retain its 108-inch maximum width and those States that allow wider vehicles by special permit.

The STAA required States to allow truck tractors pulling at least a 48 foot semitrailer or a combination comprised of a 28 foot semitrailer and a 28 foot trailer. The STAA also required States to continue to allow longer semitrailers if they were legally used prior to December 1, 1982. More than half the States allow semitrailers on the Interstate System longer than 48 feet and some States such as Louisiana and Oklahoma allow semitrailers up to 59½ feet.

SENATOR LAUTENBERG: What research does FHWA have underway concerning revising roadway standards to better accommodate the larger trucks at entrance/exit ramps and intersections?

ANSWER: The FHWA has an ongoing research study entitled "Truck Characteristics for Use in Highway Design and Operations." This study will review existing geometric design criteria and, where appropriate, will recommend changes to adequately accommodate the larger trucks. Design criteria for interchange ramps and intersections are two of the items being reviewed. This study is being performed by Midwest Research Institute located in Kansas City and is scheduled for completion in December 1989.

SENATOR LAUTENBERG: How many roadside inspections were conducted by Federal inspectors and by State inspectors under the grant program in Fiscal Years 1986 through 1988?

ANSWER: State inspectors performed 559,300 inspections in FY 1986; 1,003,794 in FY 1987; and 1,254,385 inspections in FY 1988. As a result of increased State inspections, Federal

roadside inspections have decreased--10,027 in FY 1986, 910 in FY 1987, and 238 in FY 1988.

SENATOR LAUTENBERG: How many are projected for Fiscal Years 1989 and 1990? (Include the number of vehicles and drivers placed out of service.)

ANSWER: States participating in the MCSAP are projecting to perform approximately 1.5 million inspections in FY 1989. If out-of-service rates remain about the same as in FY 1988, approximately 560,000 vehicles and 99,000 drivers will be placed out of service. For FY 1990, we expect that approximately the same numbers of inspections and out-of-service actions will be achieved, due to the maturing of the program, increased support of state carrier safety review activity with MCSAP funds, and funding level amounts.

ADMINISTRATION

SENATOR: Does FHWA agree with OTA's conclusion that fragmentation within DOT hampers safety problem solving? What are the principal reasons for your position?

ANSWER: We do not believe that fragmentation within DOT hampers safety problem solving. As OTA notes, we successfully overcame agency boundaries when implementing the Commercial Driver's License Program.

The proposal for a separate Motor Carrier Administration -- S.747 introduced in the last Congress -- would not eliminate the diffusion of motor carrier safety responsibility cited by OTA. The proposal would simply spin-off FHWA's motor carrier safety responsibilities to a separate mode. The remaining division of responsibilities would remain intact.

We believe it is better to build upon our success under the CDL program and MCSAP, and expand our program delivery effectiveness under the current organizational framework.

SENATOR LAUTENBERG: What are FHWA's views on the advantages of having a Motor Carrier Administration that would merge certain activities of NHTSA, RSPA, and FHWA? What are the disadvantages?

ANSWER:

Advantages:

1) It would create a single agency whose sole responsibility would be motor carrier safety.
2) There are separate modal administrations within DOT for rail, aviation, and maritime activities.
3) A Motor Carrier Administrator would be a high level official in dealing with industry representatives.

Disadvantages: (advantages to keeping the motor carrier safety functions undr FHWA)

1) The motor carrier industry receives high level attention from the Secretary, Federal Highway Administrator and the FHWA Associate Administrator for Motor Carriers.
2) We will continue to build upon the traditional Federal/State relationship of FHWA -- as we have done with the MCSAP and CDL Programs.
3) A separate motor carrier administration could never mirror field organization of FHWA -- offices in each State capital and major cities.

4) The transition to a new, separate administration could divert resources and distract the attention of staff who currently manage the motor carrier transportation program and could thereby delay important safety initiatives.

To summarize, the disadvantages of establishing a separate motor carrier administration outweigh the advantages. Both FHWA and the Office of the Secretary are not in favor of creating a separate motor carrier administration.

REGULATIONS PERTAINING TO FEDERAL ANNUAL TRUCK INSPECTIONS

SENATOR LAUTENBERG: Do you have any idea how much time enforcement of your new regulation will take?

ANSWER: Yes, but we do not believe it will be a significant drain on agency time. Enforcement of this annual inspection rule will take place primarily at the roadside by incorporating it into the existing procedures. State inspectors will check for evidence of an inspection performed in accordance with the rule. This documentation check should not extend the length of the inspection as long as the driver has all the necessary paperwork in order.

SENATOR LAUTENBERG: Is the agency taking any steps to address these concerns?

ANSWER: Yes. The agency is preparing a Federal Register notice of interpretation to clarify the intent of the rule to allow motor carrier generated stickers (or decals) as long as the requirements of the rule can be documented. This action is being taken in response to requests from several motor carriers by providing increased flexibility while ensuring compliance with the requirement. If stickers are used in lieu of an actual inspection report, the sticker must provide sufficient information so that the inspection report can be located. Generally, vehicles receiving a decal from a member State of the Commercial Motor Vehicle Safety Alliance are considered to have complied with the annual inspection requirement and any additional documentation is not required. Since the publication of the rule, motor carriers have indicated to the FHWA that certain information that is currently required, such as VIN numbers, license plate information and vehicle owners is difficult, if not impossible to obtain. The FHWA is preparing a rule to address these issues.

THE FEDERAL MOTOR CARRIER SAFETY PROGRAM: ENFORCEMENT ISSUES

SENATOR LAUTENBERG: Why were so many cases dropped?

ANSWER: The number of enforcement cases dropped was the result of a backlog of enforcement reports and the inexperience of the safety specialists. We have streamlined our enforcement procedures and, combined with the increased enforcement experience of our safety specialists, we do not expect to drop as many cases.

SENATOR LAUTENBERG: Are your investigators adequately trained on the legal rules of evidence?

ANSWER: Yes. The investigators are adequately trained in the legal rules of evidence in both the Motor Carrier Safety Training Program and in a separate Enforcement Case Preparation Course.

SENATOR LAUTENBERG: Why has FHWA failed again during FY 1988, to increase the vigor of its enforcement efforts?

ANSWER: The FHWA believes it has increased the vigor of its enforcement efforts. Although total collections have leveled off at approximately $2 million during the past 3 years; by comparison, FHWA collected $788,000 in FY 1985. Based on recently implemented program improvements, FHWA projects these penalty collections to increase by 50 percent (i.e., $3,000,000) over the next 12 months. We believe that the hiring of the additional 150 investigators has allowed us to achieve this level of success.

SENATOR LAUTENBERG: What empirical, quantitative evidence do you have that clearly demonstrates that FHWA's policy of promoting voluntary compliance is effective?

ANSWER: We do not have quantitative evidence, but believe that promoting voluntary compliance is effective. For example, we developed an "educational packet" that we send to a motor carrier before the SR. Several regions have reported that this is helpful especially for small carriers. It appears that once they are aware of the regulations, the small carriers are usually willing to comply with them voluntarily.

SENATOR LAUTENBERG: Please outline how your enforcement program would suffer if the Committee refuses to increase the number of motor carrier safety specialists. In your answer assume that you would not decrease the number of compliance reviews conducted next year but that you would decrease the number of safety reviews.

ANSWER: If we do not receive an increase in staff and we decrease the number of safety reviews, it will result in a 10-year delay in rating all the motor carriers. In addition to prioritizing the basis for determining the safety ratings, safety reviews help us direct our resources toward carriers that continue patterns of noncompliance with Federal safety regulations. This would undermine efforts to achieve voluntary compliance and to expand our long term enforcement efforts.

SENATOR LAUTENBERG: What empirical or quantitative data can you present to show that your program is having a positive impact on motor carrier safety statistics?

ANSWER: Based on an increase in MCS staffing and grants in recent years, there have been accomplishments and improvements seen in motor carrier safety. These are:

o In FY 1988, 2,200 complaints were investigated with enforcement actions taken against 800 carriers. Approximately $2 million in fines was collected in FY 1988 (compared to $788,000 in 1985).

o Prior to MCSAP, the FHWA conducted approximately 36,000 motor carrier vehicle and driver inspections a year. In FY 1988, State officials conducted approximately 1.2 million inspections nationwide resulting in more than 470,000 vehicles and 83,000 drivers removed from service.

o The number of fatal accidents involving combination vehicles decreased from 3,907 in 1984 to 3,742 in 1987 (Fatal Accident Reporting System, FARS). The number of fatal accidents involving medium and heavy trucks decreased from 4,831 to 4,805 in 1987.

o The vehicle miles of travel increased over the past 10 years, and the fatal accident rate per 100 million miles declined steadily:

TABLE 2: FATAL ACCIDENT RATES
1977-87

Year	Fatal Accident Rate Combination Vehicles	Fatal Accident Rate Medium & Heavy Trucks	Fatal Accident Rate All Vehicles
1977	6.5	5.1	2.9
1978	6.5	5.1	2.9
1979	6.4	5.2	3.0
1980	5.4	4.6	3.0
1981	5.6	4.5	2.8
1982	5.3	4.1	2.5
1983	5.2	4.1	2.3
1984	5.0	3.9	2.3
1985	4.9	3.8	2.2
1986	4.7	3.7	2.2
1987	4.3	3.5	2.2

Source: FARS and FHWA's Highway Statistics

SENATOR LAUTENBERG: Please outline the limitations of using accident rate data and making year-to-year comparisons based on accident rate data. For the data you provide, what are the sample size and representation limitations?

ANSWER: The current accident and exposure databases have many limitations that make it difficult to measure the direct effect of our programs on interstate motor vehicle accidents and rates. Some of the limitations are discussed below:

1. Accident Databases

a. The Office of Motor Carrier Accident File--Carriers are required to file a report with FHWA (50T/B) if involved in a fatality, injury, or property accident ($4,400 or more). The high rate of underreporting (40-60 percent) means this database is not a representative of all interstate motor vehicle accidents.

b. The National Accident Sampling System (NASS) includes fatal, injury and property accidents, but has too few interstate commercial motor vehicle accidents to develop reliable national estimates. Further, NASS is based on police accident reports which lack uniformity. The FHWA is

discussing with NHTSA the feasibility of expanding the new General Estimate System (GES) to collect enough truck accident cases in order to develop reliable national estimates.

c. The FARS is a 100 percent sample, but only for fatalities.

d. State Police Accident Reports--These reports lack uniform definitions, elements and thresholds and hence comparison among states and overtime is difficult. The FHWA is supporting the National Governors' Association effort to help resolve these problems.

2. Exposure Data

a. The Highway Performance Monitoring System's HPMS VMT data is improving as states fully implement the Monitoring Guide. However, the data cannot be analyzed separately for interstate commercial vehicles. The FHWA has a contract with Oak Ridge to investigate the feasibility of estimating VMT for only interstate commercial vehicles.

b. The Truck Inventory and Use Sample (TIUS) provides a representatives sample of VMT, but it is not collected annually.

THE FEDERAL MOTOR CARRIER SAFETY PROGRAM: ENFORCEMENT ISSUES

SENATOR LAUTENBERG: For every five lap tops, FHWA could hire an additional investigator. Did FHWA consider this trade-off when developing the budget estimate?

ANSWER: Yes we did but we disregarded the alternative for two reasons. First, the annual salaries, benefits, equipment, supplies, travel and other expenses for each additional investigator in the field is about $40,000, or about $200,000 over five years. The capital and maintenance costs for each lap top over a five year life cycle expectancy is $6,000 with an additional $2,500 needed for support activities for a total of $8,500. This equates to approximately one new investigator could be hired for every 23.5 lap top computers purchased. On the other hand, the estimated 10% efficiency gain anticipated for the user of each microcomputer would equate to a "gain" of roughly one new investigator for every 10 lap tops purchased. We believe purchasing lap top computers is a more cost effective measure.

The second reason for pursuing lap top computer implementation is that we had considered the trade-off of requesting even more investigators and support personnel than we have and we determined that such a request would not reflect our commitment to fiscal responsibility.

SENATOR LAUTENBERG: Why are you requesting this funding before all of the field testing on this computer system is completed and before the necessary software is available to implement the effective use of these systems?

ANSWER: It is necessary to make this request now because of the lead times associated with both the budget request process and the purchase and delivery of the laptops. For example, the budget request for the initial 30 laptops was made in FY 1987, the purchase was completed in FY 1988 and they were delivered this March, FY 1989. The first 30 laptops were distributed to our field offices for extensive testing as will be the second purchase of 22 laptops to be delivered later this year. The results of this ongoing, comprehensive field test will be given full

consideration prior to any full deployment decision. If the test period demonstrates that the laptop approach is cost effective, the additional 215 units will be purchased next year.

SENATOR LAUTENBERG: Wouldn't it be more prudent to first distribute a lap top to each of the 50 district offices (at a cost of $240,000), and then to later fund additional purchases, once the benefit of these systems is known? We could then save the taxpayers the difference ($792,000).

ANSWER: The first 30 laptops for testing were distributed to our field offices with every field investigator in two states, Colorado and Massachusetts, being assigned one for their use throughout the test period and every one of our nine regional offices also received two to be assigned to still more field investigators for six months each.

This scheme was selected to provide maximum exposure to the potential operational differences with which field investigators may be confronted while also giving evaluation results based on in-depth and prolonged usage. The second purchase of 22 laptops will also be distributed to the regional offices to add to the pool for six month assignments to investigators.

This latter part of the scheme will provide information on how overall field office operations will be affected and may have to be modified. Again, we would like to reiterate that only after we have fully considered the field test results and established that deployment of laptops is cost effective will we purchase the additional 215 units.

SENATOR LAUTENBERG: Your budget statement suggests that eventually these computers will save $2,750 per year per unit. Please provide definitive data to substantiate this claim, including an analysis of the reliability and validity of all assumptions used in your projection of cost savings.

ANSWER: Preliminary analyses indicate that productivity increases will more than offset the costs of the laptops. Field investigators will gain about 10% efficiency, net after learning time. Considering that annual salaries, benefits, equipment, supplies, travel and other expenses are approximately $40,000 per investigator, an increase of 10% translates into a savings of about $4,000 per field investigator per year. We will no longer require the current level of contractor data entry services, thus we should save about $450 per year per laptop deployed, or about $135,000 per year. Amortized over the five year life cycle expectancy, each unit will cost about $1,200 per year to purchase and maintain and another $500 per year in staff support. In summary, higher quality and more timely information at a cost saving of $2750 per year per unit deployed.

SENATOR LAUTENBERG: Why hasn't FHWA used its authority to shut down imminently hazardous motor carriers?

ANSWER: Through roadside inspections under MCSAP, states place vehicles out of service which are found to be imminently hazardous.

We are developing procedures to shut down all or part of a motor carriers operation until the carrier corrects the deficiencies which pose an imminent hazard to the public.

SENATOR LAUTENBERG: How many safety audits did FHWA safety auditors conduct in 1988? How many audits are expected to be conducted in 1989? 1990?

ANSWER: The FHWA has not conducted safety management audits since FY 1986 when we started the new system of SRs and CRs. During FY 1988, FHWA conducted 24,866 SRs and 4,789 CRs; for FY 1989, we expect to conduct 25,100 SRs and 7,300 CRs; and for FY 1990, 40,000 SRs and 9,900 CRs.

SENATOR LAUTENBERG: How many compliance reviews have been completed to date and how many are expected to be done in FY 1990?

ANSWER: As of the end of February 1989, FHWA had completed 3,100 CRs. We expect to conduct 9,900 CRs in FY 1990.

SENATOR LAUTENBERG: What enforcement tools are available to FHWA when carriers are in noncompliance?

ANSWER: The FHWA has a variety of enforcement tools available to address carriers in noncompliance. The three most commonly used tools are:

1. Notices of Violations--the notice to offenders regarding penalties being assessed for violations of the regulations.

2. Civil Forfeiture Proceedings--the process by which enforcement actions are generally settled. This process allows respondents to present facts to FHWA regarding corrective action or other reasons to mitigate assessed fines.

3. Civil Penalties--generally the result of civil forfeiture proceedings. It is a monetary settlement of an enforcement case typically handled within FHWA.

SENATOR LAUTENBERG: How much time is a carrier given to correct safety deficiencies before FHWA levies the maximum penalty available?

ANSWER: The amount of time varies. The Motor Carrier Safety Act of 1984 requires that the nature, circumstances, extent, and gravity of the violation be considered in addition to the violators degree of culpability, history of prior offenses, and ability to pay. The FHWA's enforcement program penalizes violators on a case-by-case basis, with higher penalties for repeat offenders. Generally, we conduct follow up CRs within 6 months of the date of the previous case settlement.

SENATOR LAUTENBERG: List the number of times each of the available enforcement tools has been used for noncomplying carriers and provide the total penalties (dollars) that have been collected.

ANSWER: Most enforcement actions are handled through civil forfeiture proceedings and result in a civil penalty of various types. Notices of Violations (i.e. claim letters) are issued for every civil case. The FHWA collected $1,998,647 in penalties during FY 1988.

SENATOR LAUTENBERG: Are you aware of any preliminary findings of the TRB report that support the definitions established by FHWA?

ANSWER: The TRB report has not been completely through its approval process so this response must be qualified. The FHWA proposed rule and the draft TRB report both recognize that the most comprehensive approach to reasonable access would involve comparing each vehicle type with the roadway upon which it would be operated. The draft report recommends that FHWA require that each State develop a process to make the vehicle-roadway comparisons under Federal standards. FHWA, having concluded that the access problem is confined to a limited number of States, would establish a presumptive standard based on existing State practices that would limit Federal preemption to a few States. When the TRB report is published, we will study it in detail before proceeding.

SENATOR LAUTENBERG: Why did FHWA establish a time period for comments on the rulemaking that does not allow States the ability to include comments on the TRB study results in their comments to the docket?

ANSWER: The closing date for the NPRM was set as a minimum acceptable period for the docket to remain open to assure ample opportunity for comment on our proposed standard. We have had several requests to extend the comment period until after the TRB report is published. Based on these requests we have decided to extend the comment period until September, 60 days after the TRB report is planned to be released. Shortly we will be issuing a notice in the Federal Register which formally announces this extension.

NEW JERSEY TRUCK SAFETY DEMONSTRATION

SENATOR LAUTENBERG: As you well know, P.L. 100-457 made $1.0 million of Motor Carrier Safety funds available to the New Jersey Office of Highway Traffic Safety to establish enforcement and public education programs and to evaluate the effect of that program on reducing truck accidents and fatalities. Has this agreement been signed yet? Please give me the current status and what will be done with funds.

ANSWER: The grant agreement between New Jersey's Office of Highway Traffic Safety (OHTS) and the FHWA was signed on Friday, April 7 in Newark. The truck safety demonstration project will contain enforcement, education, and evaluation components.

The enforcement component of the project will be county-based, and will include training municipal police officers from the counties of Ocean, Passaic, Monmouth, Middlesex, Atlantic, and Mercer. These officers will be trained and conduct commercial vehicle safety inspections in accordance with the State Title 39 vehicle code. Vehicle size and weight checks will by conducted by four county police department weigh teams in Union, Essex, Bergen, and Hudson counties.

The education component of the project will consist of developing and distributing materials (i.e., brochures and videotapes) which highlight the truck accident problem and identify construction zones and other conditions that require caution by the driver.

The evaluation component of the project will evaluate commercial vehicle inspections and weight enforcement and their effect on truck accidents. This component will also analyze the types and frequency of accidents before and after the demonstration.

NEW JERSEY SAFETY INSPECTORS

SENATOR LAUTENBERG: If the additional 150 new inspectors are added to your budget over the next two years, how many would you envision being assigned to New Jersey?

ANSWER: We would likely add four new safety specialist positions to New Jersey, bringing the total number of motor carrier safety specialists to 11.

MOTOR CARRIER SAFETY STATISTICS

SENATOR LAUTENBERG: Provide for the record updated motor carrier statistics similar to those found on pages 298, 299, 300, 301, 302, and the top of 303.:

ANSWER: The requested charts follow.

Fiscal Year	1985	1986	1987	1988
Total Carriers	212,000	220,000	190,000*	187,000*
Total H/M shippers	21,000	22,000	30,000	25,000
Total entities	233,000	242,000	220,000	212,000
Safety specialists and safety specialist trainees	132	138	212	303
Ratio staff to entities	1:1,765	1:1,754	1:1,896	1:700
Ratio staff to drivers	1:34,091	1:32,609	1:21,226	1:14,851

*Decrease is result of a purge of the census of motor carriers following reports from field staff of carriers no longer in business.

WORKLOAD DATA

	Fiscal Year				
	1984	1985	1986	1987	1988
Number of driver/vehicle inspections	22,590	16,046	10,027	910	238
Number of safety audits/ reviews	13,037	10,492	6,637	23,714	29,655
Number of investigations	1,731	2,316	2,590	885*	919*
Number of enforcement cases prosecuted and closed	474	739	529	498	456
Amount of fines collected ($)	795,805	788,916	1,877,300	2,009,597	1,998,647

*Beginning in FY 1987, investigations without evidence are included in safety audits/reviews.

ESTIMATED WORKLOAD DATA

	Fiscal Year	
	1989	1990
Number of driver/vehicle inspections	0	0
Number of safety audit/reviews.....	32,559	52,119
Number of investigations.....	1,160	2,351
Number of enforcement cases prosecuted and closed.....	951	1,503
Amount of fines collected($).....	2,997,970	5,166,429

FEDERAL HIGHWAY ADMINISTRATION
PRINCIPAL WORK ACTIVITIES IN THE
MOTOR CARRIER SAFETY PROGRAM

	1985	1986	1987	1988
Safety Management Activities:				
Safety management audits at carrier facility	3,690	2,605	19,313*	25,415*
Safety management audits, hazardous material carriers	2,224	1,205	4,012	3,716
Safety management audits, hazardous material shippers	1,916	897	389	524
Hazardous material incident investigations	141	91	30	18
Cargo tank manufacturer audits	18	18	10	3
Financial responsibility audits	2,644	1,912	3,617	87
Roadside driver/equipment examination: truck	4,827	6,365	837	189
Out-of-service vehicle	5,384	3,011	273	58
Roadside driver/equipment examination: bus	1,174	3,662	73	3
Out-of-service: bus	109	295	2	49
Out-of-service (truck and bus drivers)	1,804	969	100	56
Enforcement Activities:				
Case reports	1,881	2,590	850	919
Civil forfeiture proceedings	739	529	498	456
Investigation of carrier accidents:				
Accident investigations	32	39	27	41
Carrier accident report reviews	39,273	26,176	25,000	**
Motor Carrier Safety Assistance Program:				
State and local technical assistance (contacts)	3,753	4,360	3,409	**
State and local training presented (sessions)	283	357	255	**
State and local monitoring/evaluation (contacts)	862	2,486	1,198	**
Technical Assistance and Safety Education:				
Safety or hazardous materials meetings attended	553	482	566	650
Program assistance (contacts)	1,525	1,476	843	**
Training presented (sessions)	131	175	106	**

*Includes Safety Reviews and Compliance Reviews.
**Requirements to collect and report output data for these line items has been eliminated.

TRUCK ACCIDENTS REPORTED TO THE OFFICE OF MOTOR CARRIERS 1975 TO 1987

(The following statistics may vary slightly from previously reported statistics due to refinements in the data)

Calendar year	Fatal accidents	Fatalities	Injury accidents	Injuries	Property damage only	Total accidents	Property damage (Dollars)
1975	1,753	2,232	15,492	26,374	7,029	24,274	158,173,460
1976	1,971	2,520	16,144	26,794	7,552	25,667	183,703,280
1977	2,286	2,878	18,168	31,006	9,482	29,936	244,181,248
1978	2,441	2,998	19,830	32,757	11,727	33,998	300,320,829
1979	2,528	3,072	19,605	32,126	13,407	35,540	346,393,096
1980	2,058	2,528	16,959	27,149	12,371	31,388	311,191,496
1981	2,191	2,810	17,062	28,533	13,053	32,306	355,106,109
1982	1,978	2,456	16,354	26,117	13,945	32,277	325,449,286
1983	2,031	2,528	16,022	26,692	13,575	31,628	342,939,906
1984	2,195	2,721	17,792	29,149	16,866	36,853	404,113,087
1985	2,161	2,646	18,135	28,988	18,977	39,273	393,815,664
1986	2,098	2,609	15,056	25,092	9,022	26,176	326,380,922
1987	2,346	2,877	16,448	27,830	7,353	28,677	369,382,023

ADJUSTED TRUCK ACCIDENT STATISTICS 1975 to 1987

Effective in 1986, the minimum reporting threshold for property damage accidents was increased from $2,000 to $4,200 and again in 1987 to $4,400 to more accurately account for the effects of inflation. This has obviously caused a dramatic and apparent decrease in accident counts from 1985 to 1986. Therefore, the Office of Motor Carriers has applied an adjustment factor equivalent to an approximate GNP deflator to property damage accident counts and property damage value for the years 1976 through 1985. The following table refects the adjusted property damage only and total accident counts and the adjusted total dollar value of property damage in 1975 dollars as well as providing the adjusted property damage limit; all other columns remain unchanged.

Calendar year	Fatal accidents	Fatalities	Injury accidents	Injuries	Property damage only	Total accidents	Property damage (Dollars)	Property damage limit (Dollars)
1975	1,753	2,232	15,492	26,374	7,029	24,274	158,173,460	2,000
1976	1,971	2,520	16,144	26,794	6,577	24,692	169,003,177	2,151
1977	2,286	2,878	18,168	31,006	7,944	28,398	204,870,182	2,354
1978	2,441	2,998	19,830	32,757	9,806	32,077	239,131,123	2,478
1979	2,528	3,072	19,605	32,126	10,189	32,322	258,576,960	2,624
1980	2,058	2,528	16,959	27,149	9,203	28,220	215,568,060	2,820
1981	2,191	2,810	17,062	28,533	8,519	27,772	224,516,863	3,065
1982	1,978	2,456	16,354	26,117	8,669	27,001	186,469,333	3,350
1983	2,031	2,528	16,022	26,692	7,979	26,032	178,547,952	3,675
1984	2,195	2,721	17,792	29,149	9,592	29,579	197,381,897	3,897
1985	2,161	2,646	18,135	28,988	8,772	29,068	180,994,315	4,047
1986	2,098	2,609	15,056	25,092	9,022	26,176	172,133,298	4,200
1987	2,346	2,877	16,448	27,830	7,353	28,677	181,489,700	4,400

Accident rate statistics for 1987 are not comparable with those of previous years because of a drastically changed sample base. The sample of data used to compute rate statistics is collected during the conduct of safety reviews. This is the only source of data available for both accidents and vehicle miles traveled for the same sample of interstate motor carriers. The sample size and sample distribution of carrier type and size has changed considerably since the Office of Motor Carriers began issuing safety fitness ratings to the 185,000 unrated carriers. It is anticipated that the lack of year to year comparability will continue in the future due to the constantly changing mix of motor carriers assigned safety ratings in the yearly sample. For the foregoing reasons the presentation of accident, fatality and injury rates for 1987 are deferred until such time as new mechanisms can be devised to more accurately portray the accident rates of interstate motor carriers.

SAFETYNET

SENATOR LAUTENBERG: What is the status of SAFETYNET?

ANSWER: Tremendous strides have been made since 1986 to implement SAFETYNET in nearly all States in the Motor Carrier Safety Assistance Program (MCSAP). Participation has grown from a small handful to 41 of the 47 MCSAP States. These States are now entering vehicle and driver inspection data, targeting carriers for further technical safety assistance or investigation, and monitoring carriers' progress. Significant efforts continue to advance the functionality of SAFETYNET and enhance the usefulness of its data. We are continuing to provide for integration of State SAFETYNET data into the national database. Three efforts are nearing conclusion. The first will result in a fine-tuned Inspection Module that exhibits many of the improvements and enhancements requested by the SAFETYNET users - the States. The second will deliver the Accident Module for States to enter accident data and electronically submit it to the national database. The third, sponsored by the State of Washington, will lead to implementation of the Census Numbering Module which will provide automatic assignment of carrier-specific numbers to both inspection and accident data so that it may be attributed to the proper carrier. These three enhancements will be unveiled this July at the second national SAFETYNET workshop.

The table below summarizes the current status and projected schedule for future incremental enhancements to SAFETYNET.

SENATOR LAUTENBERG: What progress has been made in getting SAFETYNET on-line? What specific funds in the FY 1990 budget request will be used to advance SAFETYNET? Please provide an analysis of the progress, limitation, year-by-year history, challenges, and detailed projections on scheduled completion dates for SAFETYNET and other various motor carrier safety information systems.

ANSWER: Tremendous strides have been made since 1986 to implement SAFETYNET in nearly all States in the Motor Carrier Safety Assistance Program (MCSAP). Participation has grown from a small handful to 41 of the 47 MCSAP States. These States are now entering vehicle and driver inspection data, targeting carriers for further technical safety assistance or investigation, and monitoring carriers' progress. Significant efforts continue to

advance the functionality of SAFETYNET and enhance the usefulness of its data. We are working to provide for integration of State SAFETYNET data into the national database. Three efforts are nearing conclusion. The first will result in a fine-tuned Inspection Module that exhibits many of the improvements and enhancements requested by the SAFETYNET users - the States. The second will deliver the Accident Module for States to enter accident data and electronically submit it to the national database. The third, sponsored by the State of Washington, will lead to implementation of the Census Numbering Module which will provide automatic assignment of carrier-specific numbers to both inspection and accident data so that it may be attributed to the proper carrier. These three enhancements will be unveiled this July at the second national SAFETYNET workshop.

In FY 1990, $130,000 has been requested for computer equipment to facilitate data exchange between States and the national database. Some of the other activities that will advance SAFETYNET will be ongoing in FY 1990 but are funded in FY 1989 including a major contract that will carry SAFETYNET through phase II of its development. Other activities for which funding has been requested in the FY 1990 budget are not specifically devoted to SAFETYNET but include a number of other related information system activities. Table 1 summarizes the specifically identifiable studies and Table 2 summarizes the projected schedule for incremental enhancements to SAFETYNET.

SAFETYNET faces challenges similar to those faced by any modern, nationwide data system. We are responding to them systematically within the overall context of our nationwide Motor Carrier Safety Management Information System (MCMIS). It is our goal to provide reliable information from an ever expanding data system in a timely manner to those who need it in the Federal, State and private sectors.

TABLE 1
SUMMARY OF SAFETYNET EXPENDITURES

Purpose	Schedule	Cost
Develop a pilot SAFETYNET for States to enter inspection data, refine the pilot version, and deliver a working version for full implementation.	Completed 1984-1986	326,000
Design, develop and test a multi-user version of the inspection module in a Local Area Network environment. (Sponsored by the State of Kentucky.)	1987-1989	135,000
Design, develop and test the accident module segments necessary for operation in both the SAFETYNET microcomputers and the FHWA mainframe computer.	1987-1989	210,000
Design, develop and test the census numbering module segments necessary for operation in both the SAFETYNET micro- and the FHWA mainframe computer. (Sponsored by the State of Washington.)	1987-1989	300,000[1]

Determine the feasibility of expanding the accident module to full State reporting via SAFETYNET.	1989	100,000[1]
Provide microcomputer technical support and system enhancements to SAFETYNET users.	1987-1991	350,000
Design, develop and test the phase II modules (file management, report generation and safety review entry).	1989-1991	To Be Determined
Provide mainframe computer technical support and system maintenance to SAFETYNET nationwide database.	1989-1990	300,000[1]

Recap		
	FY 87 & Prior	611,000
	FY 88	400,000
	FY 88 (MCSAP)	395,000
	FY 89	165,000[2]
	FY 90	150,000
	Total	1,721,000

[1] Portion of a larger effort, not necessarily SAFETYNET.
[2] Total expenditures to be determined pending contract award.

TABLE 2
SAFETYNET STATUS AND SCHEDULE FOR FUTURE ENHANCEMENTS

Phase	State Microcomputer Systems	
I	Inspection Module	Completed
	For States to enter roadside inspection data, electronically submit data to nationwide database.	
I	Accident Module	July, 1989
	For States to enter accident data and electronically submit it to the nationwide database.	
I	Census Numbering Module	July, 1989
	To automatically assign carrier specific numbers to both inspection and accident reports.	
II	Report Generation Module	Sept, 1990
	To allow States greater capabilities in analyzing and producing customized reports from both inspection and accident data.	
II	Safety Review/Compliance Review Module	Dec, 1990
	To assist States in the conduct of safety and compliance reviews using microcomputers.	

II File Management Module Dec, 1990

To facilitate exchange of information between States and the nationwide database and for the electronic submission of safety and compliance review reports to the mainframe MCMIS.

Federal Mainframe Computer Systems

I Inspection Integration System May, 1989

To accept State transmitted inspection reports, edit and incorporate these into nationwide database.

I Accident Integration System Sept, 1989

To accept State transmitted accident reports, edit and incorporate these into nationwide database.

OFFICE OF MOTOR CARRIER EMPLOYMENT

SENATOR LAUTENBERG: For the record, update the charts on pages 294, 295, and 296 of Senate Hearings 100-853, Part I, regarding OMC employment.

ANSWER: The following charts show the on-board staffing of the Federal Highway Administration's Office of Motor Carriers as of April 1, 1989. The first is a summary of total employment by Region and State. Safety Specialist "trainees" are included in the figures for safety specialists.

MOTOR CARRIER SAFETY
ON BOARD STRENGTH*
As of 4/1/89

	Admin/Program	Safety Specialists	Clerical	Total
Headquarters	72	0	19	91
Regions	36	0	17	53
Divisions	51	207	54	312
TOTAL	159	207	90	456

	State Directors/ Officers In Charge	Safety Specialists	Clerical	Total
Region 1				
Connecticut	1	2	1	4
Maine	1	2	0	3
Massachusettes	1	5	1	7
New Hampshire	1	0	0	1

New Jersey	1	4	2	7
New York	1	14	3	18
Puerto Rico	1	0	0	1
Rhode Island	1	0	0	1
Vermont	1	2	2	5
TOTALS	9	29	9	47

Region 3

Delaware	1	0	0	1
D.C.	0	0	0	0
Maryland	1	3	1	5
Pennsylvania	1	13	4	18
West Virginia	1	2	1	4
Virginia	1	4	2	7
TOTALS	5	22	8	35

Region 4

Alabama	1	4	1	6
Florida	1	6	1	8
Georgia	1	7	1	9
Kentucky	1	7	1	9
Mississippi	1	3	1	5
North Carolina	1	7	1	9
South Carolina	1	3	0	4
Tennessee	1	8	1	10
TOTALS	8	45	7	60

Region 5

Illinois	1	7	2	10
Indiana	1	7	1	9
Michigan	1	6	1	8
Minnesota	1	5	1	7
Ohio	1	6	1	8
Wisconsin	1	6	1	8
TOTALS	6	37	7	50

Region 6

Arkansas	1	2	1	4
Louisiana	1	4	1	6
New Mexico	1	1	0	2
Oklahoma	1	3	1	5
Texas	1	13	2	16
TOTALS	5	23	5	33

Region 7

Iowa	1	6	2	9
Kansas	1	3	1	5
Missouri	1	6	1	8
Nebraska	1	2	1	4
TOTALS	4	17	5	26

Region 8				
Colorado	1	4	1	6
Montana	1	1	1	3
North Dakota	1	1	1	3
South Dakota	1	1	1	3
Utah	1	2	1	4
Wyoming	1	1	1	3
TOTALS	6	10	6	22
Region 9				
Arizona	1	2	0	3
California	1	11	2	14
Hawaii	1	0	0	1
Nevada	1	1	0	2
TOTALS	4	14	2	20
Region 10				
Alaska	1	0	1	2
Idaho	1	2	1	4
Oregon	1	3	2	6
Washington	1	5	1	7
TOTALS	4	10	5	19
All Divisions				
	51	207	54	312

*Does not include student-aides.

MOTOR CARRIER SAFETY ASSISTANCE PROGRAM

SENATOR LAUTENBERG: How many verifications did MCSAP conduct in FY 1988 to determine if the drivers and vehicles removed from service actually had the safety defects corrected before continuing service?

ANSWER: Reinspection efforts are not now a routine part of procedures followed by MCSAP states for a number of reasons, the primary one being that the degree of time required to detect violators will result in a smaller total number of vehicles inspected and placed out of service.

Some states have made special efforts to identify drivers and vehicles operating without correcting defects identified during roadside inspections.

For example, during May 17-19, 1988, 19 states and two Canadian provinces participated in an International Roadside Safety Check. A special effort was made to verify out of service orders, and 855 vehicles plus 162 drivers were reinstated. Seventy-nine of the vehicles and 34 of the drivers were reported as failing to comply with the order.

We are working with states, through MCSAP, to quantify the extent of the problem and devise effective ways of presenting it.

SENATOR LAUTENBERG: Does FHWA have any planned for FY 1990?

ANSWER: We do not have any specific plans for FY 1990. We will use the results from efforts underway, such as the work in Michigan, and work with the states to identify activities for FY 1990.

SENATOR LAUTENBERG: What are your current views of this problem and what are your recommendations regarding its solution?

ANSWER: Our best current estimates of the percentage of vehicles and/or drivers which violate an out-of-service action is approximately 10 percent. This is consistent with preliminary findings from the Michigan work during February of this year as well as the International Roadcheck effort during May of 1988. At this time, we have yet to determine if a full-scale reinspection effort instituted nationwide would be cost-effective. We will continue to work with the States on the issue. If the problem is determined to be of significant magnitude, we will implement a reinspection/followup procedure. One result of the work in Michigan and other states may be development of key indicators for those vehicles and drivers most likely to try to violate an out-of-service action. This type of information could be effectively used by MCSAP agencies to target limited, systematic reinspection efforts to maximize efficiency. The goal should be to assure maximum compliance without diverting too many inspection resources away from conducting additional inspections.

SENATOR LAUTENBERG: In terms of the validity and reliability of data, what is FHWA's assessment of the data compiled by the Commercial Vehicle Safety Alliance and FHWA on the May 1988 international roadcheck which dealt with the rate of noncompliance for out-of-service defects? In your answer, consider specifically the data compiled by Region III of CVSA which presumably was based on a common set of instructions on how to conduct the verification check on out-of-service noncompliance.

ANSWER: The May 1988 work was a "high-profile" effort which sought to reinspect almost all vehicles and drivers placed out of service, and was conducted over a 3-day period. We believe additional study produced reliable and valid results. However, we also believe that additional cost effective work in developing procedures to deal with this issue is needed.

SENATOR LAUTENBERG: What is your assessment of the accuracy, reliability, validity, and representative value of the State of Michigan's verification data?

ANSWER: The Michigan effort was conducted for 1 month, with a "low-profile" approach of reinspecting only every fifth vehicle or driver placed out of service. This randomized approach was undertaken in an attempt to minimize the possibility that drivers would become aware that a special study was underway, and change their behavior. Although different in approach, we believe both the May 1988 effort and the Michigan effort produced valid and reliable results. We will be able to judge the Michigan results in much greater detail when the full report is completed.

SENATOR LAUTENBERG: With the virtual elimination of the exemption from certain Federal motor carrier safety regulations within the commercial zone, the need for increased enforcement in these areas will increase. How will MCSAP respond to this increased workload? How will FHWA's safety specialists?

ANSWER: States are responding to the increased workload by adjusting their overall priorities and directing resources to enforce requirements in commercial zones. Some localities are joining in the enforcement efforts, and this works best where the locality has full authority to enforce all the requirements. We will continue to work with the States through MCSAP to identify effective enforcement practices and ways to improve State and local cooperation.

On the Federal side, the 150 new safety specialists will help absorb the increased workload in this area.

SENATOR LAUTENBERG: How is MCSAP increasing the involvement of local and county police officers in the MCSAP effort?

ANSWER: The FHWA encourages involvement of local and county police officers on a voluntary basis, through the MCSAP lead agency.

There are a number of examples of excellent cooperation between States and localities. For instance, the Virginia MCSAP agency has assisted personnel in Fairfax County with training needs necessary for startup of a County-funded program. Similar situations have occurred in Suffolk County, New York and in other areas. These examples demonstrate "spin-off" benefits of the MCSAP which are not directly funded at this time, but contribute greatly to overall program goals.

Local agencies may not have the full jurisdictional powers required of MCSAP participants. We should move cautiously into this area to make sure that the above listed concerns are addressed and that all necessary authority and capabilities are in place before implementing additional local programs. A strong push for expansion of the program to local agencies could produce counterproductive results from a uniformity viewpoint.

SENATOR LAUTENBERG: Are local enforcement officers receiving an appropriate and adequate level of MCSAP funds? What is your response to the CRS conclusions?

ANSWER: The FHWA believes that the fact that a relatively small number of local enforcement officers are now receiving MCSAP funds is appropriate.

As described in the CRS report, the FHWA views MCSAP as a federally assisted, state administered program that operates through the distribution of Federal funds to the states to support motor carrier safety activities. We provide the states latitude in deciding the mix of State and local enforcement efforts, which is documentd in a grant application reviewed and approved by FHWA. Our efforts have been directed towards bringing states together in terms of uniformity; we should proceed cautiously before requiring that the states further expand the scope of the program to local levels.

SENATOR LAUTENBERG: Is MCSAP's contract authority sufficient to allow increased involvement of non-state enforcement officers?

ANSWER: Existing MCSAP funding is not sufficient to provide for significantly increased participation of nonstate personnel at this time without reducing State programs and staff.

SENATOR LAUTENBERG: If existing MCSAP funds were used to increase local or county involvement in commercial motor carrier safety enforcement, what types of state activities would suffer?

ANSWER: States probably would reduce their staff and conduct fewer roadside inspections and carrier reviews.

SENATOR LAUTENBERG: What does FHWA do to encourage local or county involvement in MCSAP? Should you do more? If more funds were available for MCSAP, would you do more? No accurate assessment exists of the amount of non-MCSAP funds that state and local governments are devoting to the enforcement of commercial motor vehicle safety regulations. During the next few years, Congress must make decisions regarding the future of MCSAP. It would be important for FHWA to start collecting this information, perhaps with the assistance of the Commercial Vehicle Safety Alliance.

ANSWER: We have encouraged the states to consider increased support to localities which show an interest in initiating a commercial motor vehicle safety program.

We participate in workshops with State officials on ways to increase local involvement in motor safety activities.

Certainly if additional funds were available, direct pass through would be a viable option, and would be considered in light of other safety needs.

SENATOR LAUTENBERG: After conducting a survey of all the States using your State Program Managers, please report back on the latest estimates of non-MCSAP funds devoted to the enforcement of commercial motor vehicle safety. In preparation for next years budget defense, please continue to refine the data that you submit.

ANSWER: Based on information available in Headquarters and conversations with our field staff, we estimate that states spent $70 million in FY 1988 for motor carrier safety activities. We will refine our estimates as part of ongoing efforts to access future safety needs.

SENATOR LAUTENBERG: Please comment on the CRS option and evaluate the opportunity to strengthen MCSAP in this area.

ANSWER: We agree with the CRS suggestion to increase the number of MCSAP-funded safety and compliance reviews providing the number of roadside inspections does not decrease.

We will thoroughly assess the need of additional funds for this program as part of MCSAP's reauthorization process.

SENATOR LAUTENBERG: What is the formula for MCSAP Grants Distribution? What is the formula for CDL Grants Distribution?

ANSWER: The MCSAP is a discretionary program which distributes funds to the State based on an administratively-determined formula. The formula uses five equally-weighted factors:

1. Road mileage (all highways)
2. Vehicle miles travelled (all vehicles)
3. Number of commercial vehicles over 10,000 lbs. (GVWR)
4. Population (1980 census)
5. Special fuel adjustment (net after reciprocity adjus.)

THE COMMERCIAL DRIVER'S LICENSE (CDL) GRANT PROGRAM is divided into four categories of grants with the following distribution formulas:

Basic Grants ($5 million/year) - FY 1987-91, a minimum of $100,000 per year made available to each State (by definition, "State" includes the District of Columbia for the purposes of the CDL Program).

Supplemental Grants ($3 million/year) - FYs 1987-89 funds made available on a discretionary basis to lead States to carry out national efforts. In FYs 1990-91, funds are to be made available to the States on the basis of the number of CDL tests administered and licenses issued in the preceding fiscal year.

State Clearinghouse Grants ($5 million/year) - FYs 1989-90, a minimum of $78,431 per year made available to each State and up to $1 million per year is being set aside for the biometric identifier demonstration project. In FY 1991, the minimum per State increases to $98,039.

Information System Grants ($2 million/year) - FYs 1987-89 funds made available on a discretionaary basis to lead States (and a reimbursable agreement with NHTSA) to establish the CDL Information System.

SENATOR LAUTENBERG: List by State by year obligations of MCSAP and CDL funds.

ANSWER: Following are charts of funding provided for MCSAP enforcement programs and the CDL program, by State:

Motor Carrier Safety Assistance Program
Amounts Actually Awarded For Enforcement Programs by Fiscal Year

	FY 1984	FY 1985	FY 1986	FY 1987	FY 1988	FY 1989
AL	$50,000	$42,228	$50,000	$1,004,189	$1,700,492	$1,181,792
AK	0	0	0	0	50,000	50,000
AZ	278,992	405,245	537,370	736,310	948,476	728,802
AR	50,000	50,000	219,254	775,261	706,283	638,235
CA	0	1,250,000	1,346,436	2,058,619	2,500,000	2,500,000
CO	50,000	357,249	470,655	1,547,246	1,414,100	985,601
CT	47,520	213,013	243,106	797,624	760,024	681,020
DE	50,000	111,082	225,000	271,842	292,913	282,565
FL	0	0	0	1,749,132	1,943,157	0
GA	0	275,102	408,403	840,050	1,056,398	1,279,070
HI	32,000	32,000	40,000	151,240	257,716	156,462
ID	299,520	506,012	689,118	1,436,087	1,875,642	477,191
IL	912,036	1,470,452	1,294,000	2,092,192	2,308,960	2,344,795
IN	50,000	511,069	661,069	1,562,869	1,447,021	1,433,968

IA	297,880	472,338	465,200	384,836	629,269	806,106
KS	50,000	301,382	376,382	644,317	794,279	904,099
KY	304,000	0	225,898	1,055,940	1,347,083	2,365,000
LA	50,000	50,000	233,555	881,008	1,645,102	969,119
ME	50,000	50,000	225,000	270,559	257,853	276,042
MD	50,000	281,713	429,819	932,000	1,018,572	949,403
MA	50,000	50,000	225,000	1,120,719	1,426,411	1,121,939
MI	304,210	919,379	936,003	2,368,931	2,486,548	1,805,592
MN	493,845	782,936	887,238	1,300,611	1,061,625	1,134,569
MS	50,000	44,400	50,000	449,187	610,685	636,760
MO	539,808	539,808	626,534	916,109	1,074,249	1,088,689
MT	225,000	337,500	315,000	480,000	373,783	378,127
NE	50,000	50,000	50,000	382,620	517,564	652,916
NV	225,000	225,000	225,000	462,002	396,784	321,369
NH	146,126	153,113	185,820	326,262	225,000	296,858
NJ	50,000	50,000	50,000	1,812,261	2,136,321	2,108,609
NM	50,000	50,000	0	0	50,000	420,501
NY	21,160	50,000	581,920	2,031,614	2,065,299	2,181,094
NC	552,687	571,739	621,019	1,394,057	1,345,856	1,355,310
ND	50,000	156,740	224,926	269,092	287,980	279,507
OH	464,000	813,321	856,045	2,200,000	2,298,242	2,500,000
OK	0	0	50,000	50,000	678,621	1,134,466
OR	361,452	573,007	641,904	1,379,898	1,252,921	856,059
PA	48,174	570,524	611,996	2,125,680	1,928,102	2,396,716
RI	45,280	45,280	40,000	577,187	517,075	241,000
SC	50,000	0	0	262,106	348,837	696,770
SD	50,000	50,000	0	0	0	0
TN	355,298	808,458	1,110,522	2,340,780	2,247,859	2,500,000
TX	50,000	48,000	0	730,917	2,500,000	306,685
UT	300,480	357,012	408,393	994,836	665,478	390,087
VT	0	49,600	0	0	197,770	242,998
VA	50,000	50,000	279,501	846,405	1,048,681	1,021,173
WA	277,785	402,073	592,943	1,696,154	1,989,003	1,535,533
WV	50,000	102,843	157,526	502,301	489,349	430,352
WI	49,360	253,141	310,777	468,221	895,656	973,893
WY	0	0	0	0	48,783	50,000
AS	50,000	50,000	44,500	190,722	134,403	152,569
DC	0	50,000	0	50,000	0	0
GU	50,000	50,000	50,000	225,000	225,000	225,000
PR	21,804	50,000	150,000	225,000	225,000	225,000
VI	0	50,000	50,000	49,900	0	0
	7,703,417	14,732,759	18,472,532	47,419,893	54,702,225	48,669,411

Note: FY 1989 figures ar as of 4/12/89, and are will changes slightly due to additional approvals for funding expected during the remainder of the year.

Commercial Driver's License Grant Program
Obligations as of 4/10/89

STATE	FY 1987	FY 1988	FY 1989	STATE TOTALS
NHTSA		$49,962		$49,962
Alabama	100,000	100,000	78,431	278,431
Alaska	100,000	100,000		200,000
Arizona	100,000	100,000		200,000

Arkansas		100,000	100,000		200,000
California	**	198,440	366,860	216,587	781,887
Colorado		100,000	100,000		200,000
Connecticut		100,000	100,000	178,431	378,431
Delaware		100,000	100,000	100,000	300,000
District of Columbia		100,000	100,000		200,000
Florida		100,000	100,000		200,000
Georgia		100,000	100,000	178,431	378,431
Hawaii		100,000	100,000		200,000
Idaho		100,000	100,000		200,000
Illinois		100,000	100,000		200,000
Indiana		100,000	100,000	100,000	300,000
Iowa		100,000	100,000		200,000
Kansas		100,000	100,000		200,000
Kentucky		100,000	100,000	100,000	300,000
Louisiana		100,000	100,000		200,000
Maine		100,000	100,000		200,000
Maryland		100,000	100,000		200,000
Massachusetts		100,000	100,000		200,000
Michigan		100,000	100,000	100,000	300,000
Minnesota		100,000	100,000	100,000	300,000
Mississippi		100,000	100,000		200,000
Missouri		100,000	100,000	178,431	378,431
Montana		100,000	100,000	178,431	378,431
Nebraska	**	1,833,430	3,077,512	304,407	5,215,349
Nevada	**	159,336	167,180		326,516
New Hampshire		80,333	100,000		180,333
New Jersey		100,000	100,000	178,431	378,431
New Mexico		100,000	100,000		200,000
New York	**	2,482,750	1,681,538	4,527,959	8,692,247
North Carolina		100,000	100,000	78,431	278,431
North Dakota	**	176,044	100,000		276,044
Ohio		100,000	100,000	78,431	278,431
Oklahoma		100,000	100,000		200,000
Oregon		100,000	100,000	178,431	378,431
Pennsylvania		100,000	100,000		200,000
Rhode Island		100,000	100,000	178,431	378,431
South Carolina		100,000	100,000		200,000
South Dakota		100,000	100,000		200,000
Tennessee		100,000	100,000	100,000	300,000
Texas		100,000	100,000	178,431	378,431
Utah		100,000	100,000	178,431	378,431
Vermont		100,000	100,000		200,000
Virginia	**	600,000		78,431	678,431
Washington		100,000	100,000	178,431	378,431
West Virginia		100,000	100,000	100,000	300,000
Wisconsin		100,000	100,000		200,000
Wyoming		100,000	100,000		200,000
MCSAP FUNDS		4,980,333	$5,000,000	$5,846,987	$15,827,320
NHTSA 402 FUNDS		$4,950,000	$4,943,052	$2,000,000	$11,893,052
TOTAL OBLIGATIONS		$9,930,333	$9,943,052	$7,846,987	$27,720,372
TOTAL ALLOCATIONS		$10,000,000	$9,896,000	$15,000,000	$34,896,000

** Lead States for National Efforts

SENATOR LAUTENBERG: List by State the grants received in Fiscal Years 1987 and 1988 including both development and implementation grants.

ANSWER: A list of MCSAP State Enforcement Plan grants awarded in FYs 1987 and 1988 follows:

STATE	FY 1987 ACTUALLY AWARDED	FY 1988 ACTUALLY AWARDED
Alabama	$1,004,189	$1,700,492
Alaska	0	50,000
Arizona	736,310	948,476
Arkansas	775,261	706,283
California	2,058,619	2,500,000
Colorado	1,547,246	1,414,100
Connecticut	797,624	760,024
Delaware	271,842	292,913
Florida	1,749,132	1,943,157
Georgia	840,050	1,056,398
Hawaii	151,240	257,716
Idaho	1,436,087	1,875,642
Illinois	2,092,192	2,308,960
Indiana	1,562,869	1,447,021
Iowa	384,836	629,269
Kansas	644,317	794,279
Kentucky	1,055,940	1,347,083
Louisiana	881,008	1,645,102
Maine	270,559	257,853
Maryland	932,000	1,018,572
Massachusetts	1,120,719	1,426,411
Michigan	2,368,931	2,486,548
Minnesota	1,300,611	1,061,625
Mississippi	449,187	610,685
Missouri	916,109	1,074,249
Montana	480,000	373,783
Nebraska	382,620	517,564
Nevada	462,002	396,784
New Hampshire	326,262	225,000
New Jersey	1,812,261	2,136,321
New Mexico	0	50,000
New York	2,031,614	2,065,299
North Carolina	1,394,057	1,345,856
North Dakota	269,092	287,980
Ohio	2,200,000	2,298,242
Oklahoma	50,000	678,621
Oregon	1,379,898	1,252,921
Pennsylvania	2,125,680	1,928,102
Rhode Island	577,187	517,075
South Carolina	262,106	348,837
South Dakota	0	0
Tennessee	2,340,780	2,247,859
Texas	730,917	2,500,000
Utah	994,836	665,478
Vermont	0	197,770
Virginia	846,405	1,048,681
Washington	1,696,154	1,989,003
West Virginia	502,301	489,349

Wisconsin	468,221	895,656
Wyoming	0	48,783
American Samoa	190,722	134,403
Dist. of Columbia	50,000	0
Guam	225,000	225,000
Puerto Rico	225,000	225,000
Virgin Islands	49,900	0
TOTALS	$47,419,893	$54,702,225

SENATOR LAUTENBERG: By State list the number of vehicles and drivers placed out-of-service in Fiscal Years 1986, 1987, and 1988.

ANSWER: The number of vehicles and drivers placed out-of-service are listed by State and year as follows:

State/	Out-of-Service Vehicles			Out-of-Service Drivers		
Terr.	1986	1987	1988	1986	1987	1988
Alabama		1,916	5,123		270	1,613
Arkansas	4,258	5,789	10,545	913	1,383	2,095
American Samoa		144	424			47
Arizona	4,505	4,364	1,682	1,892	2,323	1,139
California	3,737	9,300	15,238	559	420	1,241
Colorado	326	10,511	13,816	69	2,790	3,207
Connecticut	3,527	6,354	9,809	233	347	668
Delaware	1,090	2,001	1,663	176	309	450
Florida		19	22,101		8	4,823
Georgia	8,078	10,015	16,661	4,646	2,848	4,254
Guam			446			58
Hawaii		111	788		7	5
Iowa	7,580	9,842	9,411	2,049	2,259	1,727
Idaho	2,450	2,934	2,967	687	767	1,532
Illinois	10,940	13,284	14,702	2,695	3,721	2,733
Indiana	5,704	17,124	17,571	1,066	2,148	2,180
Kansas	3,642	6,789	6,229	372	620	701
Kentucky	11,711	35,973	23,253	234	948	789
Louisiana	149	3,583	6,677	87	824	1,788
Massachusetts	153	4,005	5,268	49	1,576	935
Maryland	2,403	4,445	11,976	270	738	2,042
Maine	1,801	3,291	3,800	218	99	270
Michigan	12,595	16,287	19,141	792	1,076	1,672
Minnesota	6,080	7,540	10,155	254	460	1,077
Missouri	24,848	20,899	21,271	6,312	4,729	4,193
Mississippi		693	2,470		260	691
Montana	1,802	1,483	2,409	377	253	1,573
North Carolina	10,374	19,321	20,444	822	1,838	2,854
North Dakota	2,525	2,085	1,869	2,022	393	500
Nebraska		831	3,763		142	1,449
New Hampshire	534	1,121	1,698	150	241	1,006
New Jersey		10,251	10,545		2	1,514
New Mexico			40			1
Nevada	1,073	2,694	3,103	938	343	598
New York	2,519	8,357	21,695	**	646	**
Ohio	10,878	22,402	32,945	4,658	6,222	9,499
Oklahoma			783			237

Oregon	8,515	9,320	6,608	482	383	512
Pennsylvania	4,971	18,963	18,989	987	4,852	5,510
Puerto Rico	150	946	1,195	27	381	26
Rhode Island		1,574	2,594		280	685
South Carolina		3,236	3,787		596	474
Tennessee	39,120	43,084	45,623	6,500	6,026	6,023
Texas		**			**	
Utah	4,425	4,464	4,849	210	207	354
Virginia	1,137	2,236	5,096	58	605	1,661
Washington	6,679	11,447	15,254	232	251	1,595
Wisconsin	3,116	4,138	9,847	1,393	2,076	4,635
West Virginia	4,749	4,922	4,513	748	987	513
	218,144	370,088	470,836	43,177	57,654	83,149

** Not reported or not available.

SENATOR LAUTENBERG: In addition to the numbers of out-of-service, what is the percentage of vehicles and drivers placed out-of-service as a result of roadside inspections? (List by State for Fiscal Years 1986, 1987, and 1988.)

ANSWER: The percentage of vehicles and drivers placed out-of-service compared to the total number of inspections is listed below by State and by year:

State/ Terr.	Percent Out-of-Service Vehicles 1986	1987	1988	Percent Out-of-Service Drivers 1986	1987	1988
Alabama		38.0%	28.2%		5.3%	8.9%
Arkansas	36.2%	22.1%	34.5%	7.8%	5.3%	6.9%
American Samoa		56.9%	41.2%			4.6%
Arizona	47.4%	19.3%	24.4%	19.9%	10.3%	16.6%
California	18.1%	29.6%	51.5%	2.7%	1.3%	4.2%
Colorado	6.2%	33.2%	42.5%	1.3%	8.8%	9.9%
Connecticut	63.5%	58.7%	60.6%	4.2%	3.2%	4.1%
Delaware	60.2%	51.5%	38.9%	9.7%	8.0%	10.5%
Florida		27.1%	55.9%		11.4%	12.2%
Georgia	49.3%	55.1%	54.5%	28.3%	15.7%	13.9%
Guam			32.1%			4.2%
Hawaii		17.2%	29.2%		1.1%	0.2%
Iowa	42.8%	46.2%	32.8%	11.6%	10.6%	6.0%
Idaho	27.2%	25.1%	15.4%	7.6%	6.6%	8.0%
Illinois	20.2%	18.8%	22.5%	5.0%	5.3%	4.2%
Indiana	42.8%	47.5%	43.6%	8.0%	6.0%	5.4%
Kansas	68.9%	60.4%	51.5%	7.0%	5.5%	5.8%
Kentucky	49.6%	60.4%	46.2%	1.0%	1.6%	1.6%
Louisiana	6.3%	30.8%	38.7%	3.7%	7.1%	10.4%
Massachusetts	3.6%	31.3%	30.8%	1.2%	12.3%	5.5%
Maryland	51.7%	42.6%	28.9%	5.8%	7.1%	4.9%
Maine	70.2%	76.9%	60.9%	8.5%	2.3%	4.3%
Michigan	29.8%	27.3%	29.6%	1.9%	1.8%	2.6%
Minnesota	24.1%	23.7%	31.6%	1.0%	1.4%	3.3%
Missouri	55.8%	51.5%	49.5%	14.2%	11.7%	9.8%

Mississippi		19.4%	29.3%		7.3%	8.2%
Montana	43.5%	41.5%	15.4%	9.1%	7.1%	10.0%
North Carolina	42.1%	37.4%	30.4%	3.3%	3.6%	4.3%
North Dakota	35.3%	36.4%	27.3%	28.3%	6.9%	7.3%
Nebraska		60.6%	35.8%		10.3%	13.8%
New Hampshire	10.0%	29.8%	34.0%	2.8%	6.4%	20.1%
New Jersey		33.2%	29.1%		0.0%	4.2%
New Mexico			40.0%			1.0%
Nevada	12.3%	29.7%	35.9%	10.8%	3.8%	6.9%
New York	61.0%	35.5%	50.5%		2.7%	
Ohio	19.0%	25.0%	32.4%	8.1%	6.9%	9.3%
Oklahoma			20.6%			6.2%
Oregon	53.8%	59.7%	39.5%	3.0%	2.5%	3.1%
Pennsylvania	37.1%	42.1%	39.6%	7.4%	10.8%	11.5%
Puerto Rico	91.5%	81.2%	45.8%	16.5%	32.7%	1.0%
Rhode Island		53.7%	49.1%		9.6%	13.0%
South Carolina		47.3%	44.3%		8.7%	5.5%
Tennessee	71.8%	48.3%	47.6%	11.9%	6.8%	6.3%
Texas						
Utah	46.4%	43.5%	48.6%	2.2%	2.0%	3.5%
Virginia	38.0%	60.3%	40.3%	1.9%	16.3%	13.1%
Washington	43.5%	45.6%	27.4%	1.5%	1.0%	2.9%
Wisconsin	48.3%	39.0%	40.6%	21.6%	19.6%	19.1%
West Virginia	47.7%	38.7%	27.6%	7.5%	7.8%	3.1%
	39.0%	36.9%	37.5%	7.7%	5.7%	6.6%

Blanks indicate the State was not in MCSAP in that year, or data not reported.

SENATOR LAUTENBERG: List by State the number of safety inspectors supported by the Motor Carrier Safety Assistance Program?

ANSWER: The following is a breakdown of safety inspectors by state for FY 1989:

MCSAP FY 1989 State Enforcement Plan Data
Budgeted Labor Projection - Total # of Inspectors

Alabama	22	Nevada	37
Alaska**	0	New Hampshire	5
American Samoa	2	New Jersey	24
Arizona	12	New Mexico	25
Arkansas	27	New York	54
California	25	North Carolina	48
Colorado	50	North Dakota	12
Connecticut	20	Northern Marianas*	0
Delaware	2	Ohio	55
Dist. of Columbia *	0	Oklahoma	43
Florida*	0	Oregon	97
Georgia	35	Pennsylvania	400
Guam	4	Puerto Rico	11
Hawaii	11	Rhode Island	8
Idaho	24	South Carolina	22
Illinois	413	South Dakota*	0
Indiana	193	Tennessee	167
Iowa	91	Texas	215
Kansas	19	Utah	39

Kentucky	63	Vermont	4
Louisiana	31	Virgin Islands*	0
Maine	13	Virginia	17
Maryland	18	Washington	68
Massachusetts	29	West Virginia	24
Michigan	147	Wisconsin	26
Minnesota	19	Wyoming**	0
Mississippi	27		-----
Missouri	34	Total	2,807
Montana	7		
Nebraska	68		

* Not participating in MCSAP.
** In development phase of MCSAP.

EFFECTIVENESS OF THE MOTOR CARRIER SAFETY ASSISTANCE PROGRAM (MCSAP): THE FEDERAL-STATE PARTNERSHIP

SENATOR LAUTENBERG: In terms of program and policy improvements, what has FHWA done during the last year to reevaluate compliance requirements that pertain to MCSAP inspections? What do you plan to do to improve motor carrier safety?

ANSWER: The FHWA has undertaken a study on the magnitude of the situation in which vehicles or drivers placed out of service do not correct the condition before continuing their trip. We are in the "problem scoping" stage, and have not yet determined whether or not the magnitude of the problem justifies expending significant MCSAP resources to solve. Preliminary results of an initial effort in the State of Michigan during the month of February are being analyzed, and we plan to have several additional States conduct similar efforts in the near future tosee if the results vary significantly.

When these results are compiled, we will have a much better framework upon which to design possible changes to current verification procedures.

SENATOR LAUTENBERG: What changes in MCSAP verification procedures have been or will be implemented? When? Are any changes proposed in conjunction with the 1990 budget?

ANSWER: We believe that additional work in developing cost-effective verification procedures is needed prior to implementing any changes.

SENATOR LAUTENBERG: Is there any funding requested in the 1990 budget for this activity?

ANSWER: Not specifically but, pending the results of work underway, we may initiate further work in FY 1990.

SENATOR LAUTENBERG: Do you still think additional studies are necessary or is it time to act?

ANSWER: We believe that additional work in developing effective procedures to deal with this situation is needed, if the degree of the problem warrants further study. The institution of a reinspection program would result in a lower

number of inspections. We do not wish to disrupt procedures of MCSAP agencies

SENATOR LAUTENBERG: Please provide FHWA's views on the advantages/ disadvantages of centralizing NHTSA and FHWA accident and exposure data collection and analysis activities. What would be the short-term cost to centralize? What is the annual savings that centralization could be expected to generate?

ANSWER: There is no advantage to combining these activities beyond eliminating some minor data overlap in reporting fatal accidents that involve interstate trucks. The are major differences in accident data needs of the two agencies that were well understood by the writers of Gearing Up For Safety inasmuch as they recommend coordination and uniformity between these activities, not centralizing them.

NHTSA and FHWA fully coordinate data collection activities. Despite different data elements collected for different accidents, we periodically examine our definitions and procedures to assure appropriate uniformity. In addition, the two agencies work closely together with such groups as the National Governor's Association committee on State accident data uniformity, the standard setting committees of the National Safety Council, and accident data committees of the Transportation Research Board.

To combine the data collection and still fulfill the different data needed by each agency would require data currently collected for only some of the accidents to be collected for every accident. This would increase overall costs. It would be more beneficial to relate each agency's data whenever necessary, avoid redundancies and assure common definitions and uniformity are observed.

RESEARCH AND DEVELOPMENT

Considering the importance of our Nation's highways to commerce, industry, and recreational activities, the need for and importance of a well-directed and targeted research effort becomes evident. Responding to such need, a Strategic Highway Research Program was developed. The National Public Works Council, however, has reported that this program does not include longer-term, potentially higher payoff, but more speculative research designed to find wholly new material and techniques.

SENATOR LAUTENBERG: Is the National Public Works Council's criticism valid?

ANSWER: The Strategic Highway Research Program (SHRP) was developed through consensus of approximately 1,000 technical experts from 6 major areas of technology. Peer groups were formed with representatives of public agencies, industry, universities, and research organizations. Their deliberations were published as SHRP Research Plans, May 1986. In general, the plans were to be as innovative as possible to solve persistent problems which were draining the highway community's resources through maintenance activities. A portion of the SHRP funding is reserved and being used for speculative research ideas that merit investigation because of potentially high payoffs. The budget for open solicitation projects is $6.2 million and 9 projects were approved for award by the end of SHRP FY 1988. Although this is a start, even more speculative research needs to be done on new materials and techniques. Our

upcoming legislative proposal will address this in a more comprehensive fashion.

SENATOR LAUTENBERG: Would you outline the short- and long-term research objectives for the Nation's highways?

ANSWER: In the short-term, the research programs should continue to focus on past and current problem areas. This applied research is being conducted through the SHRP, the National Cooperative Highway Research Program, and the Highway Planning and Research Programs conducted by the State highway agencies. In general, the applied research programs provide incremental improvements in highway safety, traffic operations, structures, and pavements.

The Federal Highway Administration's research program conducts some applied research for problems of national importance, but a major component of the program is directed to longer-term, fundamental research to address problems and opportunities for the year 2000 and beyond. Examples include safety and operational improvements to accommodate the aging driver population, use of advanced electronic technologies to create intelligent vehicle-highway systems, and investigation of new materials and techniques for restoration and reconstruction of the current highway system.

SENATOR LAUTENBERG: What has been realized to date through the Strategic Highway Research Program?

ANSWER: The Strategic Highway Research Program (SHRP) has been in effect for about 2 years. A 1988 Annual Report describing the progress to date was submitted to Congress in January of this year. Briefly, most of the time has been spent in getting the research contracts underway. By June 30, 1989, the SHRP is expected to award 53 contracts with a total value of $101 million. Few of these contracts have produced results to date. Much effort has gone into setting up a regional organization to work with the State agencies in making the field measurements on pavements under the Long-Term Pavement Performance (LTPP) portion of SHRP. In addition, approximately 800 test sites have been identified across the U.S. and data collection has begun. The LTPP is funded at one-third of the $150 million SHRP budget. The SHRP has revitalized the interest in innovation in the States and has stimulated activity among the researchers in universities and industry. The SHRP has also developed an international following with 25 countries participating. Canada has set up a complementary C-SHRP and the Nordic countries an N-SHRP. A total of eight special delegates from seven countries have served approximately 1-year terms with the SHRP staff.

SENATOR LAUTENBERG: What future payoffs are expected from this program and when will they be realized?

ANSWER: The Strategic Highway Research Program (SHRP) concentrates research on only four high-priority topics for 5 years: Asphalt, Concrete and Structures, Highway Operations, and Long-Term Pavement Performance.

SHRP was developed to produce highly implementable highway research results such as new or improved methodologies, equipment, materials, or tests. SHRP management involves many top-level executives from State agencies who are in positions to perform the subsequent post-SHRP implementation through normal technology transfer channels.

It is anticipated that some results from the research contracts will start to become available in 1990 and will continue through early 1993. In general, the program will produce:

a. Improved asphalt binders which, with better quality of construction, will produce longer lasting pavements.

b. Portland cement products that will resist natural chemical and physical deterioration and will better protect embedded steel.

c. Maintenance materials and techniques that will cost-effectively restore the highway or structure to an acceptable service life and produce new snow/ice control techniques.

d. A nationally-developed pavement design procedure for use in designing pavements to serve under the increasing traffic loads which will recognize the regional variations in climate and other environmental conditions throughout the United States. The data collection for this research will continue for 15 years beyond the formal end of SHRP to allow a comparison of actual life to that predicted from the equations developed during the first 5 years.

e. Nondestructive techniques to assess the physical condition of existing pavements and structures, as well as improved methods for performance prediction.

TECHNOLOGY TRANSFER PROGRAM (T^2)

SENATOR LAUTENBERG: What is the status of the agency's efforts to design and implement a system that will measure the effectiveness of the T^2 program?

ANSWER: Last year we indicated the General Accounting Office (GAO) had a study underway which surveyed highway officials on how they learned about new or improved highway pavement technologies. GAO reviewed 15 different information sources, including T^2 information from the Federal Highway Administration (FHWA). Ninety-six percent of the respondents indicated they relied on information from FHWA to a moderate, great, or very great extent. FHWA was the chosen source for T^2 information over other sources which included State, academic, industry and other national resources for information. This report entitled "Highways: How State Agencies Adopt New Pavement Technologies" was sent to the Chairman, Subcommittee on Investigations, Committee on Public Works and Transportation, House of Representatives in August 1988.

During the last year the FHWA completed a study of the effectiveness of many aspects of its T^2 program. This study examined a random sample of T^2 products from a broad range of program areas and evaluated the effectiveness of the T^2 program to achieve implementation of new technologies. The study shows that in some States, remarkably high success was achieved. However, in other States, the results were mixed, with traffic-oriented programs targeted for cities showing the poorest implementation. The agency is now drafting revisions to T^2 delivery mechanisms to make the program more effective, especially in urbanized areas.

SENATOR LAUTENBERG: On what basis are the T^2 funds distributed to each Center?

ANSWER: The T^2 Centers are funded on a needs basis as reflected in their annual work plan and budget for performing standard tasks. The funds are subject to a $100,000 annual maximum for each Center, and must be matched on a 50/50 basis by the State, university or local agency sources. Some of the Centers are funded by the

States, universities and local agencies in excess of the $100,000 match.

SENATOR LAUTENBERG: List the Rural Transportation Assistance Projects (RTAP) let in fiscal year 1988 and to date for fiscal year 1989 with a brief description of the award including amount.

ANSWER: The list of RTAP projects let in fiscal year 1988 and to date for fiscal year 1989 follows:

List of Rural Transportation Projects Let in Fiscal Year 1988

Project Number	Title	Award	Description
R9	Extend, Expand, and Support Technology Transfer Center Program	$3,000,548	Establish 3 new centers, extend 37 centers, and fund T^2 Clearinghouse.
R46A	INSPITE application to RTAP 46, Demonstration of Pavement Repair	64,550	Provides a series of interactive video disks on selected cost-effective maintenance techniques.
R18B	Microcomputer Software for Highway Culvert Energy Dissipaters	30,000	Develop easy-to-use computer programs for the design of highway culverts and prepare users manual.
R4	Road Surface Management for Local Governments	171,383	Update the existing 3-day course and develop a 1-day overview course designed primarily for local government officials.
R57	Optimizing Procedure for Producing Quality Constructed Roads and Streets	177,587	Develop manual to provide guidance for administrators and supervisors on how to develop quality assurance management programs.
R66	Bridge Posting and Evaluation Handbook	149,985	Develop a summary handbook describing the need for posting bridges, how overstress and fatigue affect bridge load capacity, and how proper selection of load limits prolongs the life of bridges.
R67	Hydraulic Design Techniques for Short Span Bridges	96,365	Adapt the guidelines in the FHWA demonstration project "Highway Drainage Design" for use in rural low volume road situations.

R65	Local Road Superintendent's Handbook on Supervisory Practices	65,245	Develop a practical "how-to" book on basic supervision for first line road supervisors.
R70	Proper Installation and Maintenance of Safety Features	68,875	Prepare a series of handbooks on how to repair and maintain various roadside safety features such as W-beam guardrail, barrier terminals, small sign supports, and drainage structures.
R54	Traffic Operations Courses for Small Urban Areas	109,540	Provide additional courses for small urban areas on traffic control devices, traffic signal design, and driver expectancy considerations.
	TOTAL	$3,934,088	

Awards - Fiscal Year 1989

R9	Extend, Expand, and Support Technology Transfer Center Program	$3,495,525	Established new center in Idaho, extended 41 existing centers, provide support services for centers, and fund T^2 Clearinghouse.
R71	Spanish translation of the Standard Specification Manual	32,280	Translate the manual into Spanish using appropriate Spanish technical terms and include metric units when applicable.
R68	Roadway Drainage for Small Towns	65,800	Develop a drainage manual to assist non-technical employees of small towns in understanding the adverse impact of poor drainage on local roads, and how to remedy common drainage problems.
	TOTAL	$3,593,605	

UNIVERSITY TRANSPORTATION RESEARCH

SENATOR LAUTENBERG: List the universities receiving FHWA contract funds, including the purpose of the contract and cost.

ANSWER:

1. University: Massachusetts Institute of Technology
   Cost: FY 88 $11,417; Total $255,074
   Purpose: Determine the basic parameters for life cycle cost analysis of pavements.
2. University: Oregon Graduate Center
   Cost: FY 88 $310,000; Total $1,012,258
   Purpose: Determine (1) the fundamental weldability of newer structural alloys, (2) the effect of weld-induced stresses in welded connections, and (3) the effects of thermal cutting on the structural properties of steel plates. Also assess welding procedures for repairing cracks in steel bridges while carrying normal truck traffic.
3. University: Pennsylvania Transportation Institute
   Cost: FY 88 and Total $186,303
   Purpose: Determine driver needs for improved pavement delineation under wet night conditions.
4. University: University of Michigan
   Cost: FY 88 $23,855; Total $388,399
   Purpose: Determine the safety implications of various truck configurations above 80,000 pounds.
5. University: Texas A&M Research Foundation
   Cost: FY 88 and Total $228,571
   Purpose: Determine the impact of traffic accident migration on the apparent effectiveness of accident countermeasures.
6. University: Texas Transportation Institute
   Cost: FY 88 $61,380; Total $424,964
   Purpose: Crash test heavy vehicle barriers to determine impact forces and other data needed to develop more cost-effective designs.
7. University: University of Florida
   Cost: FY 88 $20,000; Total $277,075
   Purpose: Revise the "Arterial Analysis Package" software to improve its reliability and ease of use.
8. University: University of Michigan
   Cost: FY 88 and Total $24,500
   Purpose: Start development on an intelligent system for vehicle control.
9. University: University of North Carolina
   Cost: FY 88 and Total $42,000
   Purpose: Prepare a position paper on the prospects for highway safety in the 21st century.
10. University: University of Pittsburgh
    Cost: FY 88 $205,110; Total $935,110
    Purpose: Conduct fatigue tests of variable amplitude loads on welded bridge connections.
11. University: University of Tennessee
    Cost: FY 88 and Total $20,000
    Purpose: Evaluate warning times for longer trucks at railroad-highway crossings.
12. University: Vanderbilt University
    Cost: FY 88 and Total $281,000
    Purpose: Establish test conditions and evaluation criteria for future side impact crash tests.

13. University: New Mexico State University
Cost: $52,082 in FY 88
Purpose: For seven presentations of a training course on "Practical Highway Bridge Inspection."
14. University: Michigan State University
Cost: $53,000 in FY 88, $653,000 Total
Purpose: For development and six presentations of a 4-week, graduate level, "Highway Pavements" course.
15. University: Purdue University
Cost: $0 in FY 88, $567,500 Total ($400,000 FY 86, $167,500 FY 87)
Purpose: For development and two presentations of a 6-week graduate level "Highway Materials Engineering" course and two presentations of a 2-week university faculty orientation.

HIGHWAY RESEARCH AND DEVELOPMENT

SENATOR LAUTENBERG: Briefly describe the relationship of FHWA with the Strategic Highway Research Program (SHRP).

ANSWER: SHRP was established by Section 128 of Public Law 100, Surface Transportation and Uniform Relocation Assistance Act of 1987. A cooperative agreement was entered into by FHWA with the American Association of State Highway and Transportation Officials and the National Academy of Sciences on May 29, 1986, to carry out the program. SHRP was established as a separate element of the National Research Council which is the operating arm of the National Academy of Sciences.

SHRP is managed by a 15-member Executive Committee that is appointed by the Chairman of the National Research Council. The Federal Highway Administrator and the FHWA Executive Director are ex-officio members of the Executive Committee. Procedures have been established by FHWA for the administration and financing of SHRP. FHWA has been actively involved in the development of SHRP from the start. The original study which pointed out the need for the Strategic Research Program, was funded by FHWA and conducted by the Transportation Research Board. FHWA provided loaned staff and contractor support for the SHRP pre-implementation activities. FHWA continues to provide a loaned-staff person to the SHRP.

SENATOR LAUTENBERG: What level of funding does the Federal Government provide for SHRP?

ANSWER: Federal funding comes from a 1/4 of 1 percent set aside of Federal-aid highway construction funds as authorized in Section 128(d) of Surface Transportation and Uniform Relocation Assistance Act of 1987. SHRP is a 5-year program and Federal funds of approximately $30 million are provided each year (FY87-91) for a total of $150 million.

SENATOR LAUTENBERG: What are the primary areas that SHRP will be involved in?

ANSWER: The primary technical areas that SHRP will be involved with are:

Asphalt characteristics - Basic research on asphalt to develop performance related specifications. ($50 million)

Pavement performance - Long term field observation of in-service pavements. ($50 million)

Highway operations - Research on maintenance cost effectiveness and snow and ice control. ($28 million)

Concrete and Structures - Basic reseach on cement and concrete as well as protection of concrete bridge components. ($22 million)

SENATOR LAUTENBERG: Will this duplicate the work of FHWA's highway safety research and development efforts?

ANSWER: No. There is only one Strategic Highway Research Program (SHRP) study that is safety related. It deals with maintenance work zone safety and it complements FHWA activity in construction work zone safety.

QUESTIONS SUBMITTED BY SENATOR BYRD

CORRIDOR H IMPROVEMENT PROJECT IN WEST VIRGINIA

SENATOR BYRD: The amount of $16 million is included in P.L. 100-457 for this project, specifically the Buckhannon Bypass. What is the status of this project?

ANSWER: The FHWA has just approved revised plans, specifications, and estimates for the project. The entire $16 million has been obligated.

The $16 million was appropriated for the first of three project phases, a 0.89 mile bypass section from existing US-33 to US-20 north of Buckhannon. The other two project phases will complete the bypass, connecting the first phase section at US-20 with existing US-33 at Reger/Heavener Grove, east of Buckhannon. The entire bypass will be about 4.8 miles long. It will be on the FAP system and become US-33. The estimated cost for the first section, authorized in the 1989 appropriations act, is $16 million. Costs for the other two sections are estimated at $19 million (Total bypass cost = $35 million). The entire bypass will be financed with the $16 million of demonstration funds provided this year (100 percent Federal share) and the remainder with APD funds.

The PS&E for the bypass is complete. Construction of the first phase will begin in the immediate future. Construction of the other two phases is scheduled to begin later this fiscal year. The estimated completion date is late 1990.

WEST VIRGINIA BRIDGES

SENATOR BYRD: Please tell me what your needs report indicates for West Virginia's highways and bridges. Under this FY 1990 budget, what could the State expect to receive in obligation ceiling, and how does that compare with the federal funds portion of the needs report? Would a federal gas tax change help?

ANSWER: In terms of pavement condition, only West Virginia's Interstates rank above the national average for 1987. The State's best system is its urban Interstate

system, which reported no pavement deficiencies in 1987. West Virginia's urban collectors rank last, with 28 percent of their mileage in poor condition.

In terms of bridge conditions, West Virginia is worse than the national average:

Bridge Conditions

	Bridges	Structurally Deficient	Functionally Obsolete	Total
U. S.	577,710	23%	18%	41%
W V	6,513	43%	18%	61%

The needs report contains estimates of highway needs at the National level but does not contain needs estimates for individual States. The West Virginia Department of Highways can provide you with their own assessment of needed highway funding for the future.

The FY 1990 obligation ceiling for any of the States is not yet available. Preliminary estimate will not be available until late summer. We estimate that each State's ceiling will be slightly lower than the ceiling received in FY 1989, based on the President's budget.

SENATOR BYRD: Please give me a status of the following information on bridges:

ANSWER:

Bridge	System	Rating Factor	Obligated Discretionary Funds	Obligated Formula Funds
Southside	Local City	(1)	$0.00	$0.00
Cheylan	FA Urban	36.6	$0.00	$0.00
Kanawha Co. (2)	--	--	--	--
Weirton-Steubenville	FA Primary	(3)	$43,062,000.00	$1,371,560.00
6th Street	FA Urban	6.55	$0.00	$3,845,457.00
Virginia Street	Local City	(4)	$0.00	$0.00

(1) Rating Factor can not be computed with any degree of accuracy because the bridge was not submitted as a candidate for discretionary funding in FY 1989 (see write up below).

(2) Cheylan Bridge.

(3) Initially funded before the effective date of the Rating Factor Criteria.

(4) No Rating Factor; the total project cost is less than $10.0 million.

General

Applications for FY 1990 funding under the discretionary bridge program are due in Washington Headquarters on July 1. Master funding plans for the FY 1990 program will be developed from that list. First priority will be given to those bridges previously funded that need additional funds in the first 3 quarters of the fiscal year.

Southside Bridge

The State did not submit a request for bridge discretionary funds in FY 1989 and the FHWA is not involved in West Virginia's current plan to rehabilitate the existing bridge at a total estimated project cost of $5.6 million. The DOT and Related Agencies Appropriations Bill, 1987 (HR99-696) urged priority consideration of the Southside Bridge in Charleston from the FY 1987 discretionary bridge account.

Cheylan Bridge

The State did not submit a request for bridge discretionary funds in FY 1989. The total estimated project cost is $27.0 million. The Surface Transportation and Uniform Relocation Assistance Act of 1987 (P.L. 100-17) listed the Chelyan Bridge in Kanawha County as a Demonstration Project.

Weirton-Steubenville

The bridge was initially selected for the discretionary bridge program in FY 1982. The State did not request any funds in FY 1989. The project was considered to be fully funded; however, the FHWA has been advised that discretionary bridge funds will be requested for FY 1989 (if available) and FY 1990. The current total project cost estimate is $53.8 million.

6th Street Bridge

The State requested $20.0 million in FY 1989 for construction. The bridge was not selected for discretionary bridge funds. The State has obligated $3.8 million of apportioned bridge funds for PE & ROW. The total project cost is estimated at $28.2 million.

Virginia Street Bridge

The State requested $3.44 million in FY 1989 for construction. The bridge was not selected for discretionary bridge funds. Although the total project cost of $4.5 million is below the eligibility threshold of $10 million, the bridge was designated as eligible for the program through Section 323 of the Department of Transportation and Related Agencies Appropriation Act, 1989 (P.L. 100-457).

Approximately 80 percent of the discretionary bridge funds available in FY 1989 were allocated to ongoing projects. This is consistent with the FHWA's established policy of giving first priority to those bridges previously funded that need additional funds in the first 3 quarters of the fiscal year.

The remaining funds (approximately 20 percent) were allocated to four new projects with Rating Factors less than 6.00. Although the

Virginia Street Bridge does not have a Rating Factor because of its low total project cost, a hypothetical Rating Factor of 6.27 was computed using the reported total project cost of $4.5 million. Consequently, there were no discretionary bridge funds available for the Virginia Street Bridge.

TIMBER BRIDGES

SENATOR BYRD: Are you familiar with work being done in West Virginia and/or the U.S. Forest Service (USFS) to use specially treated hardwood timber in bridge construction? Could such work meet AASHTO standards? Has any crash testing been done?

ANSWER: It is assumed the "specially treated hardwood timber" is post-tensioned, stressed timber beams, which are being used by West Virginia and the USFS in timber highway bridges. Under USFS's "Timber Bridge Initiative" a number of these bridges are being built.

The stressed timbers are considered an improvement over the old longitudinal-laminated timbers for bridges, based on research conducted by the University of Wisconsin, Colorado State University, Pennsylvania State University, and West Virginia University.

AASHTO so far does not have a design standard specifically for stressed timber, however, the USFS has requested the presentation of a proposal to the AASHTO Timber Bridge Subcommittee.

These stressed timber highway structures are typically provided with a"Glu-Lam" (glue-laminated) wood bridge rail. The USFS requested the FHWA to crash test this type of bridge rail mounted on a wood deck. It successfully passed tests with a small car and a pickup truck, and it meets the Performance Level One (PL-1) requirements for low-volume roads as specified in the new AASHTO Guide Specifications for Bridge Railings. The FHWA is assisting the USFS and the University of Nebraska in developing additional crashworthy bridge rail designs by conducting crash tests at the University of Nebraska.

APPALACHIA

SENATOR BYRD: At the Secretarial overview hearings, Secretary Skinner, Senator Lautenberg, and I discussed the need for completion of the Appalachian Highway (System) and the funding difficulties connected to the goal if it is to be achieved in the near (future). What is the current status of the Appalachian Highway (System)?

ANSWER: The Appalachian Development Highway System is approximately 3,400 miles in length. Construction was required on 3,000 miles of which 2,000 miles is now completed. Since 1965, approximately $3.3 billion of Federal funds from the General Fund have been expanded at the pro rata share of 80 percent. In 1987, the estimated Federal share of the cost to complete the system was $6 billion. Inflation will, of course, increase the figure as time passes.

The Appalachian Highway Program is a non-Title 23 funded program. The funds come from the General Treasury via Energy and Water Development Acts. The Appalachian Regional Commission (ARC) controls the policies, allocations, and priorities in the program. The FHWA administers the construction of the system for the ARC and is reimbursed. There is no authorization act in force at the present time. Each year the ARC requests appropriations from Congress. Between 1982 and 1989, the yearly appropriation has averaged approximately $90 million. The Reagan Administration tried to phase out and terminate this program since 1981 but were not successful. The FY 1989 highway allotment that the ARC transferred to the FHWA includes $65,594,000 for highway construction and $1,190,000 for administration.
The FHWA has not requested any funds for the ARC Highway Program because it is a non-Title 23 program under Title 40. The ARC has the responsibility and the lead under Title 40 for developing information for Congress and for making requests for appropriations for this program. For FY 1990, the ARC requested a minimum appropriation of $120 million for the highway program.

SENATOR BYRD: Do you believe that this highway (Appalachian Development Highway System) can be funded out of existing highway Trust Fund revenues?

ANSWER: All Trust Fund allocations are now expended on the Federal-aid systems such as the primary, urban, and secondary and also on the bridge program. The needs far exceed the resources that are available. To use Trust Funds for completion of the Appalachian system would have the effect of reducing the other programs. Also, using Trust Funds for a 13-State region would reduce the amount of funds available to the other 37 non-Appalachian States that pay into the Trust Fund. At present, the 13 States can use Federal-aid primary funds to supplement the general funds allocated for the system, but the funds come out of their normal allocation of Federal-aid primary funds.

SENATOR BYRD: Your budget is reduced by 20 full-time equivalents assuming the elimination of the Appalachian highway effort. If the program is funded in FY 1990 should the FTEs be restored? Further, if there is a very sizeable increase in the Appalachian program (say to $140 million), should the FTEs be correspondingly increased?

ANSWER: If the program is funded in FY 1990, the FTEs should be restored. Further, if there is a sizeable increase in the Appalachian program, the FTEs should be increased. However, it may not be necessary to increase the FTEs in a direct relationship to the increase. For example, doubling the funding from $70 million to $140 million would not necessarily mean the FTEs would need to be doubled.

QUESTIONS SUBMITTED BY SENATOR HARKIN

DELIVERY OF FEDERAL-AID HIGHWAY PROGRAM

SENATOR HARKIN: This past December the Federal Highway Administration (FHWA) released a report entitled "Program Delivery" concerning program delivery strategies and how the FHWA deals with the States on a day-to-day basis. I understand that the report deals with a number of ways to considerably reduce the amount of paperwork and red tape that States must contend with in their relations with FHWA. I would appreciate knowing what actions have been taken to reduce the paperwork requirements of the States?

ANSWER: The main thrust of the Program Delivery report was oriented more towards FHWA's own management of the Federal-aid highway program and how this might be streamlined and improved, both now and in the future. The report explores 1) the roles of FHWA's organization levels (Headquarters, regions and divisions), 2) development of FHWA's technical expertise, 3) innovative approaches to program management, and 4) the efficient use of FHWA's field offices.

The FHWA is presently undertaking an agency-wide review of the management areas suggested in the report. One particular area under review is the amount and type of information or data needed by FHWA's Headquarters from its field offices for effective management of the program. This review may lead to eliminating, consolidating or reducing some reporting requirements, use of existing State data bases where possible, and additional use of electronic transfer of information. Initiatives implemented in this area could well result in some reduction of paperwork and red tape for States.

SENATOR HARKIN: Do you have or can you provide a list of legislative changes that you can recommend to the Congress to improve the efficiency of FHWA-State interactions?

ANSWER: The FHWA is looking at various options to streamline the delivery of Federal-aid highway funds as part of its effort to develop legislative recommendations for the post-Interstate Federal highway program. These efforts are on-going and not completed yet. Recommendations for this program will likely to be presented to Congress next year.

ROCK SALT STUDY

SENATOR HARKIN: The FY 89 Appropriations contained $225,000 for a study of the full economic costs of using rock salt and calcium magnesium acetate on highways. As you know, there is a great deal of damage from the use of rock salt on the highways and bridges. There is also a great deal of cost to vehicle owners from rust. And, utilities and others who have equipment under or near highways also bear a heavy burden of costs. Can you provide me with the status of the study required by the committee?

ANSWER: It has been decided, in accordance with the legislation, that the Transportation Research Board (TRB) of the National Academy of Sciences, should conduct the study. Liaison has been established with the TRB. A procurement package to be

used in preparing and executing an agreement with TRB is being processed by our Office of Contracts and Procurement. It is anticipated that the study will be completed approximately 18 months after execution of the agreement with the TRB.

DUBUQUE CITY ISLAND BRIDGE

SENATOR HARKIN: In the FY 1987 Supplemental Appropriations Bill, the Congress included language which provided that the second phase of the Dubuque City Island Bridge should receive discretionary bridge funds. It was the clear intent of the Committee that those funds should be provided for the entire project, from City Island to the touchdown point in Dubuque. That intent was clearly stated in colloquy between myself and the chairman, Senator Lautenberg. A copy of that colloquy was sent to Secretary Dole in a joint letter from Chairman Lautenberg and Chairman Lehman.

It was transmitted to the department with a cover letter indicating that if the department had any difficulty with the Congress' intent, they should contact the Committee.

As far as I know, the Department never did contact the Committee. The FHWA has provided funding for the bridge only to a point where the bridge still has 15 feet of clearance, two blocks from the point where the bridge actually touches down.

I would like to know how this incomplete funding is reconciled with the clear congressional intent of the bill language in the FY 1987 Supplemental?

ANSWER: Former Secretary Dole responded to Chairman Lautenberg and Chairman Lehman by identical letters dated July 27, 1987. Her letter assured both parties that the Department would keep their comments about the limits of Phase II in mind as officials of the Iowa Department of Transportation developed the project to the construction stage.

Secretary Dole's earlier letter to Senator Grassley dated May 28, 1987, established the limits of eligibility for this additional work to be the mainline bridge and ramps easterly from 16th Street to Kerper Boulevard and the mainline Peosta Channel Bridge to its touchdown connection at the west end of Phase I on City Island. Secretary Dole's letter assured Senator Grassley that construction of the mainline Peosta Channel Bridge and ramp bifurcation to 16th Street would receive the highest priority for discretionary bridge funding upon completion of the preliminary engineering phase by the Iowa Department of Transportation. Consequently, discretionary bridge funds in the amount of $23,671,000 were allocated on October 19, 1988, to cover the cost of construction through 16th Street.

QUESTIONS SUBMITTED BY SENATOR SASSER

DEFICIENT BRIDGES

SENATOR SASSER: The U.S. Department of Transportation has reported that the percentage of structurally deficient interstate bridges has risen from 10.6 percent in 1982 to 15.9 percent in 1988. The interstate system is aging; the public interest demands that we reverse this trend. What will it take to achieve an adequate level of maintenance, repair and replacement of highway bridges to insure the public safety? Should highway funds be earmarked for this propose? If we dedicated one cent of the Federal gas tax to this purpose, would that put us in a position to repair and replace bridges faster than they are wearing out?

ANSWER: The increase in the percentage of structurally deficient Interstate bridges is the result of two phenomena; (1) the aging of Interstate system bridges and (2) the fact that States have used a large portion of their post 1982 STAA Interstate 4R funds to address pavement problems. Pavement conditions on the Interstate system demanded immediate attention in the mid-1980's. The increase in Interstate bridge problems will bring about a similar redirection of Interstate funds as State administrators recognize that bridges need more attention.

In 10 or 15 years, however, there may be a temporary significant increase in Interstate bridge needs as a large group of bridges approach the age where they need rehabilitation.

Current FHWA estimates are that total backlog bridge needs plus accruing bridge needs between 1987 and 2005 amount to about $93 billion in 1987 dollars. While a complete analysis of year-by-year funding requirements has not been made, dividing the $93 billion total by the 18 year period results in an annual national bridge program of about $5.0 billion.

It is estimated that current total annual expenditures for bridge improvements by all levels of governments are about $5.0 billion. This amount is comparable to average bridge needs over the foreseeable future. However, because more than half of the estimated total bridge needs are existing backlog needs, bridge program requirements may be temporarily quite high and later taper off as they are met.

Bridge needs for the future will be justified and addressed in the forthcoming FHWA/DOT proposal for post 1991 highway legislation.

SENATOR SASSER: Since 1985 the Federal Highway Administration has strengthened its bridge inspection standards to require States to adopt underwater inspections and scour evaluations. How many States have complied with the standards to date?

ANSWER: From data received from the States in March 1989, it was determined that 42 States (81 percent) and the local governments in 31 States (56 percent) were determined to be in compliance with underwater inspection. Also, it was determined that 21 States (41 percent) and the local government in 12 States (22 percent) were determined to be in compliance with scour evaluation.

SENATOR SASSER: Do the States have an accurate inventory of underwater deficiencies of bridges on the Federal - State and local systems? How does the Federal government monitor this system and verify the information? What Federal action is taken when State

inspection programs or inspection information is found to be inaccurate or inadequate to protect the public safety?

ANSWER: In accordance with the 1988 revision of the National Bridge Inspection Standards (NBIS), effective October 25, 1988, the States are working diligently to complete the required master list of bridges which require underwater inspection and perform the inspections. Each underwater member must be described, the inspection frequency stated, not to exceed 5 years, and the inspection procedure specified with inspection findings and follow-up actions listed. The underwater inspections, along with those members which can be visually evaluated during periods of low flow or examined by feel, will identify and locate underwater deficiencies. As a State or local government completes its underwater inspection, it will have an accurate record of bridge underwater deficiencies.

Periodically the Washington Office requests an update of State and local government actions to comply with the underwater inspection requirements of the NBIS. In addition, the FHWA field offices continue to work closely with the State highway agencies to evaluate their activities, assist States in developing underwater inspection lists and to ensure compliance with the NBIS.

Any State or local jurisdiction not in compliance with the NBIS may have approval of further Federal-aid projects withheld until compliance is achieved.

SENATOR SASSER: Of the 238,357 deficient bridges identified by the U.S. Department of Transportation, how many of these have underwater deficiencies?

ANSWER: Of the 238,357 deficient bridges reported in the 1989 Highway and Bridge Needs Report, 227,700 bridges (96 percent) are over waterways. Of the number over waterways, 61,800 bridges (26 percent) of the total deficient have deficient substructure units. These deficiencies include both underwater and other substructure deficiencies which cannot be determined separately from the available data in the National Bridge Inventory.

SENATOR SASSER: Should Federal resources from discretionary funds be targeted to help States implement underwater inspection programs? How much would it cost to put in place an inspection program that would prevent tragedies like the one in West Tennessee on April 1 that killed eight people?

ANSWER: Discretionary bridge funds are authorized to finance bridge replacement or rehabilitation projects on the Federal-aid system exceeding $10 million in estimated costs. For smaller program States, bridge projects costing less than $10 million are eligible if the estimated cost is more than twice the State's bridge apportionment for the particular year funds are requested. The discretionary funds are vital to the States in their efforts to provide transportation improvements involving costly bridge replacement or rehabilitation projects. The States can use their apportioned bridge funds for bridge inspection, including underwater inspection programs. However, the use of those funds for inspection reduces the amount of money available to those States for bridge replacement and rehabilitation. The funds assigned for the discretionary program would similarly be reduced, if they were made available for inspections. The FHWA's position is that the States should either use apportioned bridge funds or State resources to implement underwater inspection programs. Discretionary funds should be used for their intended purpose.

It would be impossible to arrive at a realistic cost for an underwater inspection program that would prevent bridge failures such as the one in West Tennessee on April 1. Information available from a Southeastern State indicates it is spending approximately $118,000 (1988 cost) for each of its three underwater inspection teams. This amount includes salaries, overhead and travel expenses for three inspectors. An initial start-up cost per team of about $46,000 was required for an inspection vehicle, boat and diving equipment. Each team can inspect approximately 120 bridges per year which averages to nearly $1,000 in personnel costs per bridge. These costs are for the States's in-house personnel only. Consultants do not perform inspections on State owned bridges in the State used in this example. According to this State, another 3-man team needs to be added to bring its program to the desirable staffing level. It would be difficult to compare these costs to Tennessee or other States because of the variations in bridge types and location, river or stream characteristics, salary structure, etc.

SENATOR SASSER: Could the US Army Corps of Engineers assist with these inspections?

ANSWER: The FHWA believes that satisfactory State and private sector underwater inspection capabilities are available to perform bridge inspections. In Tennessee the underwater portion of the program is accomplished by utilizing both State inspectors and consultant engineering-diving firms. Tenn DOT does not have divers on staff, however, the regular bridge inspection teams perform investigations to depths of 10 feet by probing or wading where applicable. Consultant services are used to inspect those depths greater than 10 feet. Most recently, the underwater inspection of 164 bridges identified as too deep for in-house personnel were completed by consultants. The FHWA feels the program for underwater inspection in Tennessee is effective and assistance by the US Army Corps of Engineers is not necessary at this time.

QUESTIONS SUBMITTED BY SENATOR D'AMATO

RESEARCH, DEVELOPMENT, & TECHNOLOGY

SENATOR D'AMATO: What efforts do you have planned to place greater emphasis on relieving highway congestion, addressing the needs of older driver, and controlling deterioration of highway bridge piers in rivers and streams?

ANSWER: Research on advanced motorist information systems will be continued and their feasibility and effectiveness in congested urban locations will be evaluated. These systems will provide real-time, in-vehicle information on route selection, traffic conditions, avoidance of traffic disturbances such as accidents or construction zones, emergency hazards, and motorists' services.

A major activity is the Pathfinder project, a preliminary experiment in cooperation with the California Department of Transportation (Caltrans) and General Motors using 25 cars with in-vehicle navigation systems operating in the Santa Monica Freeway "Smart Corridor" in Los Angeles.

Work is underway to provide more efficient and easily understood and applied traffic management strategies for freeway

corridors such as the INFORM system in Long Island, New York, and refined computerized traffic analysis and design tools. The latter would include traffic signal optimization programs and traffic simulation models for advance testing of control strategies. Research on advanced forms of traffic signal systems will focus on adaptive control, i.e., signal timing which adjusts itself to current traffic demands.

In addition, work is underway on a proposal for FY 1991 for a major program to develop, demonstrate, and deploy existing and new advanced technology in the form of intelligent vehicle-highway systems for the relief of congestion.

Another high priority area will examine highway design standards and operating policies in relation to the capabilities and needs of a growing population of older drivers. The work will build on the recent National Academy of Sciences study, "Improving Safety and Mobility for Older People." The work will address older driver capacities in relation to such things as size and legibility of traffic control devices, traffic maneuvers such as gap acceptance and passing, freeway and urban street driving, and night driving and lighting.

Both the in-vehicle and older driver work are being coordinated with the National Highway Traffic Safety Administration.

Control of the deterioration of highway bridge piers in rivers and streams is being given high priority by the Federal Highway Administration (FHWA) in its research and technology sharing programs. For engineering and inspection, FHWA released a Technical Advisory on Bridge Scour in September 1988 prescribing new procedures for evaluating the vulnerability of bridges to scour and presenting repair alternatives and remedial measures. A new Demonstration Project concentrates on underwater inspection of bridge piers and foundations for structural integrity, deterioration, and scour. The demonstration has been requested by more than 40 States. The FHWA R&D program has initiated a high priority research activity on "Critical Substructural Bridge Elements" to improve the safety and reliability of underwater bridge members by developing strategies for the best use of available inspection, evaluation, maintenance, repair, and construction resources. Considerable information exchange continues on performing underwater and splash zone repairs (protection) on concrete supports by FHWA, the Army Corps of Engineers, companies using oil drilling platforms, and others.

MOTOR CARRIER SAFETY

SENATOR D'AMATO: What is the status of state implementation of the commercial motor vehicle driver's license program?

ANSWER: As of April 15, 1989, fourteen States had passed legislation needed to implement new testing and licensing programs for commercial motor vehicle drivers. Most of the remaining States have either introduced legislation or expect to this year, and the other few States plan to introduce the needed legislation next year.

On January 3, California became the first State to issue commercial drivers' licenses (CDLs), and the Commercial Driver's License Information System (CDLIS) became operational. The CDL coordinators in the State driver licensing agencies estimate that approximately 12 additional States will join California in issuing

CDLs during 1989 with 28 more participating by the end of 1990. The balance of the States are expected to have their CDL programs in place, including "hook-up" with the CDLIS, by the statutory deadline, April 1, 1992.

SENATOR D'AMATO: About 5 million commercial operators including some 300,000 public and private bus operators, school bus drivers and mechanics must pass the new knowledge and skills test mandated by the Commercial Motor Vehicle Safety Act of 1986. Does FHWA plan to make funds available to assist these operators in preparing to take these tests?

ANSWER: No, we will not provide funds to assist operators in preparing to take these tests. We are providing grants to States for developing and implementing their CDL program. Several States developed model testing materials and distributed them to all the other States. Operators may use the materials to prepare for the test.

Nebraska, acting as the lead State, awarded a contract to the Essex Corporation to develop materials. Operators may use the materials to prepare for the test. Master copies of this manual are currently being made available to the States and the District of Columbia for incorporation into their State licensing programs. Using CDL grant funds, the State can adapt the model driver's manual to their specific needs to assist commercial driver applicants in preparing to take these tests.

Through the cooperation of the FHWA and the AAMVA, the States are also pooling some of their CDL grant funds to develop an alternative testing program to assist functionally illiterate drivers in obtaining a commercial operator's license.

QUESTIONS SUBMITTED BY SENATOR DOMENICI

COMMERCIAL DRIVER'S LICENSING

SENATOR DOMENICI: Could you provide for the record the funding history of the Commercial Driver's License Program since its establishment in 1986?

ANSWER: The Commercial Motor Vehicle Safety Act of 1986 provided for a $61 million grant program to be used in implementing individual State Commercial Driver's License (CDL) programs and national efforts for the benefit of all the States and the District of Columbia. In the first two years of the CDL program (FYs 1987-88) a total of almost $20 million was allocated to the States for these efforts. Another $15 million is being allocated in FY 1989. In each of the last two years of the grant program (FYs 1990-91), allocations of $13 million are anticipated.

In an effort to use these $61 million to provide the greatest benefit for the dollar, several major national efforts were established in the areas of testing, the CDL information system, the CDL telecommunications network and public information. Through the use of pooled funds and lead States, many potentially repetitious efforts by the States are being eliminated and resulting benefits being provided to the States at a reduced cost.

SENATOR DOMENICI: Would you also provide a listing of the States that are participating in the program, and the funding levels upon which they are operating?

ANSWER: The attached chart lists the participation levels of all 50 States and the District of Columbia in the Commercial Driver's License (CDL) Grant Program for FYs 1987-1989. This list includes funds being used for internal State efforts and national efforts for the benefit of all the States. The FY 1989 obligation level only reflects participation as of April 1989. Since the States are on varied implementation schedules, funds are being obligated by individual States throughout the fiscal year.

COMMERCIAL DRIVER'S LICENSE GRANT PROGRAM -- OBLIGATIONS

STATE	FY 1987	FY 1988	FY 1989	STATE TOTALS
@ NHTSA	$100,000	$ 49,962		$ 49,962
Alabama	$100,000	$100,000	$ 78,431	$ 278,431
Alaska	$100,000	$100,000		$ 200,000
Arizona	$100,000	$100,000		$ 200,000
Arkansas	$100,000	$100,000		$ 200,000
# California	$198,440	$366,860	$ 216,587	$ 781,887
Colorado	$100,000	$100,000		$ 200,000
Connecticut	$100,000	$100,000	$ 178,431	$ 378,431
Delaware	$100,000	$100,000	$ 100,000	$ 300,000
District of Columbia	$100,000	$100,000		$ 200,000
Florida	$100,000	$100,000		$ 200,000
Georgia	$100,000	$100,000	$ 178,431	$ 378,431
Hawaii	$100,000	$100,000		$ 200,000
Idaho	$100,000	$100,000		$ 200,000
Illinois	$100,000	$100,000		$ 200,000
Indiana	$100,000	$100,000		$ 300,000
Iowa	$100,000	$100,000		$ 200,000
Kansas	$100,000	$100,000		$ 200,000
Kentucky	$100,000	$100,000	$ 100,000	$ 300,000
Louisiana	$100,000	$100,000		$ 200,000
Maine	$100,000	$100,000		$ 200,000
Maryland	$100,000	$100,000		$ 200,000
Massachusetts	$100,000	$100,000		$ 200,000
Michigan	$100,000	$100,000	$ 100,000	$ 300,000
Minnesota	$100,000	$100,000	$ 100,000	$ 300,000
Mississippi	$100,000	$100,000		$ 200,000
Missouri	$100,000	$100,000	$ 178,431	$ 378,431
Montana	$100,000	$100,000	$ 178,431	$ 378,431
# Nebraska	$1,833,430	$3,077,512	$ 304,407	$5,215,349
# Nevada	$159,336	$167,180		$ 326,516
New Hampshire	$80,000	$100,000		$ 180,333
New Jersey	$100,000	$100,000	$ 178,431	$ 378,431
New Mexico	$100,000	$100,000		$ 200,000
# New York	$2,482,750	$1,681,538	$4,527,959	$8,692,247
North Carolina	$100,000	$100,000	$ 78,431	$ 278,431
# North Dakota	$176,044	$100,000		$ 276,044
Ohio	$100,000	$100,000	$ 78,431	$ 278,431
Oklahoma	$100,000	$100,000		$ 200,000
Oregon	$100,000	$100,000	$ 178,431	$ 378,431
Pennsylvania	$100,000	$100,000		$ 200,000
Rhode Island	$100,000	$100,000	$ 178,431	$ 378,431

COMMERCIAL DRIVER'S LICENSE GRANT PROGRAM--OBLIGATIONS (CONT'D)

STATE	FY 1987	FY 1988	FY 1989	STATE TOTALS
South Carolina	$100,000	$100,000		$ 200,000
South Dakota	$100,000	$100,000		$ 200,000
Tennessee	$100,000	$100,000	$ 100,000	$ 300,000
Texas	$100,000	$100,000	$ 178,431	$ 378,431
Utah	$100,000	$100,000	$ 178,431	$ 378,431
Vermont	$100,000	$100,000		$ 200,000
# Virginia	$600,000		$ 78,431	$ 678,431
Washington	$100,000	$100,000	$ 178,431	$ 378,431
West Virginia	$100,000	$100,000	$ 100,000	$ 300,000
Wisconsin	$100,000	$100,000		$ 200,000
Wyoming	$100,000	$100,000		$ 200,000
MCSAP FUNDS	$4,980,330	$5,000,000	$5,846,987	$15,827,320
NHTSA 402 FUNDS	$4,950,000	$4,943,052	$2,000,000	$11,893,052
TOTAL OBLIGATIONS	$9,930,333	$9,943,052	$7,846,987	$27,720,372
TOTAL ALLOCATIONS	$10,000,000	$9,896,000	$15,000,000	$34,896,000

@ Special Study for FHWA.
# Lead States for national efforts.

SENATOR DOMENICI: What is the average cost of operating this program in a State?

ANSWER: We do not know the average cost of operating this program in a State. It is difficult to estimate due to the diversity of existing State programs--whether a State already has a classified license system or the extent of automation. States may decide to pass additional costs to the users through application, testing, and other licensing fees. The fee structures reflected in the draft State CDL legislation are a more accurate indicator (compared to an average cost) of CDL costs. In California, a preliminary fee of $10 was set until the State Department of Motor Vehicles completes a study of the costs of implementing the new program. On the other end of the range, another State's preliminary cost projections indicate that CDL licenses, valid for 4 years could cost some drivers up to $110.

Therefore, the financial impact that the Federal regulations will have on each State and its commercial motor vehicle drivers varies depending on how the States' current testing and licensing practices compare with the Federal Standards. Some States, like Maine or New York, already test drivers in the type of vehicle the person intends to operate. As such, these States may not have to make significant changes to their testing procedures in order to meet the minimum standards. States which do not have special testing and licensing requirements for commercial vehicles will see the most significant increases in operating their testing and licensing programs. State costs will also be higher than average, if a State decides to upgrade its computer capabilities for all driver licensing functions because of the changes needed for commercial driver licensing.

SENATOR DOMENICI: How many States do you anticipate adding to the program in FY 1990, if any?

ANSWER: Currently, all 50 States and the District of Columbia have been participating in the Commercial Driver's License Grant Program during the first 2 years of the program. It is anticipated that they will all continue to participate in the program this year and in Fiscal Years 1990 and 1991.

SENATOR DOMENICI: Finally, what is the current status of the GAO Survey of State Commercial Driver License (CDL) Coordinators to which the State of New Mexico has been asked to respond?

ANSWER: The GAO Survey of State Commercial Driver License Coordinators is being conducted by the GAO's regional office in Cincinatti at the request of the Senate Commerce Committee. The purpose of that survey is to determine the status of each State's participation in the CDL program, with particular attention to the State's projected date for linking up with the Commercial Driver's License Information System (CDLIS) and issuing CDLs. GAO indicates that it sent questionnaires to the CDL coordinators in each State in February, and that it has received all the necessary responses. GAO is now collating and analyzing the survey data. Upon completion, the survey results will be forwarded to the requesting committee.

SUPPORTIVE SERVICE PROGRAM

SENATOR DOMENICI: Last year, the budget request did not include funding to continue the supportive services On-the-Job Training (OJT) Program. The purpose of this program is to provide skill training to minority groups and women, and in my State of New Mexico, this has been a particularly important program in training unskilled individuals.

When this program was phased out, I indicated an interest in offering an amendment to allow States to continue this program, if they so chose, by using a portion of their Federal-aid highway apportionments for skill training. Specifically, the amendment would have allowed States to expend up to one quarter of one per centum of their interstate, primary, secondary, urban, bridge, hazard elimination and rail-highway crossing apportionments for skill training.

Given the valuable training this has provided to disadvantaged individuals in many States, would the administration support an amendment to allow continuation of this program, at the discretion of the States and at no additional Federal cost?

ANSWER: FHWA would support an amendment to allow the States to continue the Supportive Service (SS) Program, although the SS Program does not, typically, involve actual crafts training.

The last Administration Bill contained an unsuccessful initiative which would have allowed the States the option to use 1/10th of 1 percent of all funds apportioned by FHWA for the SS programs.

The primary objective of the OJT Program is the training and upgrading of minorities and women toward journey level status. The SS Program, established as an adjunct to the OJT Program, provides services in connection with approved OJT Programs for

highway construction workers. The SS Program, along with the enforcement of the contract Equal Employment Opportunity (EEO) Special Provisions, has increased the overall effectiveness of the OJT Program.

BRIDGE INSPECTION TRAINING

SENATOR DOMENICI: The Federal Highway Administration has been developing a new, expanded bridge inspection program. In particular, I am interested in the effort to develop a new bridge inspection training program. There exists a great amount of expertise within our universities to help in this effort. I would urge that you try to take advantage of that expertise and look forward to working with you on this matter. In addition, please provide comments on this effort.

ANSWER: The FHWA has continually developed and offered bridge inspection training courses since the bridge inspection began nearly 20 years ago. Nearly all of these courses have been developed and presented by the FHWA's National Highway Institute or Implementation Division with private sector assistance from engineering consultants and universities.

In recognition of the need for updating bridge inspection training, the FHWA will soon issue a request for proposals to rewrite and to modernize the Bridge Inspector's Training Manual - 70, to develop a new comprehensive training course for bridge inspectors and to put on the comprehensive course, upon request, for any State requesting the training.

We expect at least two universities to respond to the FHWA request for proposals along with a number of engineering consulting firms. The two universities with extensive bridge inspection training expertise are New Mexico State University and Florida State University.

We anticipate that one or both of these organizations will provide very competitive responses to our imminent request for proposals.

SUBCOMMITTEE RECESS

Senator LAUTENBERG. The next hearing of this subcommittee will be on Wednesday, April 12, at 10 a.m., in this same room. We're going to be discussing Coast Guard at that hearing.

Thank you very much.

The committee is adjourned.

[Whereupon, at 2:38 p.m., Thursday, April 6, the subcommittee was recessed, to reconvene at 10 a.m., Wednesday, April 12.]

DEPARTMENT OF TRANSPORTATION AND RELATED AGENCIES APPROPRIATIONS FOR FISCAL YEAR 1990

WEDNESDAY, APRIL 12, 1989

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 10:07 a.m., in room SD–124, Dirksen Senate Office Building, Hon. Frank R. Lautenberg (chairman) presiding.

Present: Senators Lautenberg, Adams, D'Amato, and Grassley.

DEPARTMENT OF TRANSPORTATION

U.S. COAST GUARD

STATEMENTS OF:

VADM CLYDE T. LUSK, JR., VICE COMMANDANT

LCDR E. WAYNE HOLLINGSWORTH, MARINE ENVIRONMENTAL RESPONSE DIVISION

CAPT ROBERT NORTH, CAPTAIN OF THE PORT, NEW YORK

CAPT EDWARD ROE, CAPTAIN OF THE PORT, PHILADELPHIA

ACCOMPANIED BY:

RADM ROBERT T. NELSON, CHIEF, OFFICE OF NAVIGATION SAFETY AND WATERWAYS SERVICES

RADM JOEL D. SIPES, CHIEF, OFFICE OF MARINE SAFETY, SECURITY AND ENVIRONMENTAL PROTECTION

CAPT J. DAVID SPADE, CHIEF, BUDGET DIVISION

OPENING REMARKS

Senator LAUTENBERG. Good morning. I will call this Subcommittee on Transportation of the Appropriations Committee to order.

Today we are going to receive testimony from the U.S. Coast Guard on its 1990 budget request.

At the subcommittee's hearing today, I am going to be asking the Coast Guard to provide us with an update on the *Exxon Valdez* oil spill and cleanup efforts, including the President's announcement that the Federal Government will now direct the cleanup efforts.

I am going to review the status of contingency plans, and we are going to explore the degree of risk to the ports of Philadelphia and New York from an incident such as the Valdez grounding.

Now, I would note that the Delaware River is the largest port of entry for foreign oil in this country, with 364 million barrels annually in that port area alone.

In New York we have an annual delivery of 266 million barrels, and it is the largest bulk commodity arriving in the harbor, according to the port authorities of New York and New Jersey. Between the two ports abutting New Jersey, we have over 600 million barrels a year of oil and fuel components coming in.

This compares very directly with the volume of material that has been shipped out of Port Valdez each year, some 700 million barrels. The Valdez spill should ring alarm bells for all of us, not just in Alaska, but in every port of this Nation where oil is shipped and where a spill could happen.

The fact is that Philadelphia and New York are less prepared to answer that alarm than was Alaska. We cannot abide that. That has to change.

I intend to make sure that we have the plans, the equipment, and the funding that we need to do that. I am glad that the President has called for a nationwide review of contingency plans.

Once an accident happens, these plans are the only thing that stand between us and disaster. They offer us a lot more protection, or at least should offer us more protection, than all of the containment booms in the United States. The spill in Valdez was a transportation accident that, in my view, was preventable. But it could have happened anywhere. It could have been a tanker breaking in half in the Delaware Bay, or in New York Harbor, or off the east coast or off any part of the coastlines of the United States.

Now, I have been working for several years to address safety problems in various transportation modes, including the broader use of the National Driver Register.

It is clear to me that the Nation's transportation system is still riddled with loopholes that put all of us at risk. I have introduced legislation already that provides the Coast Guard with access to the National Driver Register data bank as it licenses tanker pilots.

Tragedies like we have had, such as the Chase, MD, train accident, and the Covington, TN, drunk driving crash, the Pam Am 103 bombing, and the *Exxon Valdez* oil spill are painful experiences. But they can also serve as valuable lessons, identifying loopholes so that we can close them.

Accidents will happen in spite of our best efforts to prevent them. But we have to put our best efforts forward. We must be willing to carefully and calmly look at preventive measures and response mechanisms and take the necessary steps in timely fashion to improve them.

It makes no sense to me to wait until something has happened to figure out what kind of plans we ought to have in place. If a 10-million-gallon spill can occur in an isolated and remote area like Prince William Sound, AK, surely it can occur in the congested waters like Delaware Bay or the New York Harbor.

Now, in one way we have been lucky, if that word is appropriate, in that Exxon is providing significant funding for the early efforts in Alaska. We understand that they have reimbursed the Coast Guard some $4 million already for oil spill costs on the same day that the bill was presented to them.

Imagine what would have happened in Alaska if Exxon had been less forthcoming or project what could have happened to New Jersey if a single vessel foreign flag tanker broke in half. Where would we go?

The results would be disastrous.

There are simply no adequate plans to deal with such an accident, nor are there adequate financial mechanisms in place to fund that kind of cleanup effort.

We are not trying to assess blame here today for the Valdez accident. However, we need to ask several questions.

Can we avoid a comparable accident around New Jersey or any other part of our coastline? How adequate are the response mechanisms? What can we do to improve them? How adequate are laws, State and Federal, and how can we improve them?

I am sure that the Coast Guard's testimony here today will be valuable to us as we consider the 1990 budget priorities and as I consider other legislation needed to protect the citizens of New Jersey and the citizens of this country in all areas which are at risk.

I welcome today Vice Adm. Clyde T. Lusk, Jr., the Vice Commandant of the U.S. Coast Guard to the hearing.

I would like to say at the outset that in my visit to Valdez, which took place about 10 days ago, shortly after the spill happened, I had the full and open cooperation of the Coast Guard in every way.

Where there might have been problems within the structure, within the organization, people were frank and candid with me, and I appreciate that. This is because I sensed through it all, in my conversations with Commandant Yost and yourself, Admiral Lusk, and Admiral Robbins, who accompanied me on the trip, that there was a commitment to making things better, so that, in the future, we do not have the kind of devastation that we had as a result of Valdez.

As I saw it, no attempts to brush anything aside where responsibility lay with the Coast Guard occurred. They accepted it and said that they had to make sure that they would fix those things, if any, that were wrong. There was no finger pointing, and I respect that.

So we are pleased to have you here today, Admiral Lusk, and would ask you, if you can, to summarize your statement. We will place your full statement in the record.

I would like to acknowledge that a colleague of mine, a distinguished colleague, from the State of Washington, is with us today at my invitation. Though Senator Adams is not a member of this subcommittee, he has a profound interest in what happens to coastlines, especially in his State, not too far from where this terrible tragedy took place.

Senator Adams, if you have a statement that you would like to offer, we would be pleased to accept it. If, on the other hand, you would be willing to enter it into the record, the record is, as well, open for that.

STATEMENT OF HON. BROCK ADAMS, U.S. SENATOR FROM WASHINGTON

Senator ADAMS. Thank you, Mr. Chairman.

I just have a very short comment that I want to make. I have had a close and warm relationship with the Coast Guard since I

was Secretary of Transportation. I have often referred to them as the "Boy Scouts in Blue."

I will be directing some questions to you, with the chairman's permission, and I am deeply grateful to Chairman Lautenberg for this opportunity, as I am very concerned about Puget Sound.

I think that what happened in the Alyeska and Valdez situation is too many years of complacency. If you had asked Alyeska before this happened, could it happen and do we have the equipment to respond to this type of spill, they would have answered yes. We have in the Puget Sound area what is known as the Clean Sound Coalition. If you were to ask them could this happen in Puget Sound, they would say no, and could it be cleaned up, they would say yes.

But I was just in Puget Sound, and I was at Eddis Hook, and they have taken the environmental equipment out of there and it is located elsewhere in the Sound.

I agree with the chairman's comments. We are not here to finger point. But I am here to ask questions about the shadows in your vessel traffic control system, which we all instigated 10 years ago, to see where the ships were. I don't think that it is functioning at full efficiency.

I will ask about the contingency plans for Puget Sound. I think they are scattered, as they were in Alaska, between the Coast Guard and various private functions.

I am very concerned that we still haven't received the final report on the accident that occurred on a vessel at Anacortes, where the Coast Guard approved modifications to the ship to put oil in a buoyancy tank and it sank.

Mr. Chairman, this is where we have dungeness crab, and we have oysters, and the sound is like a big bathtub. All the water comes in through the Strait of Juan de Fuca and it all goes out the same way. So if we ever get a spill there, we will have oil trapped in there for all time.

I just mention this in my opening comments so that you can be prepared. I have sent Admiral Yost a letter with a series of specific questions that I hope will be answered.

But most of all, I agree with the chairman's comments. We are here today to try to be certain that we have updated not only our equipment, but our people, and that we do not have complacency, that we don't have scattered equipment, and that we have an adequate response plan.

I, too, commend the President. I think the Coast Guard should be in charge of spills when they occur because otherwise we have confusion.

I thank you, Mr. Chairman, for allowing me to sit in this morning, and I look forward to the testimony.

Senator LAUTENBERG. Thank you, Senator Adams. Again, we note that you have served as a Secretary of Transportation and you have a deep interest in Coast Guard and in all of the matters affecting our coastline and the environment. We welcome your participation.

With that, Admiral Lusk, we ask you to make your statement.

STATEMENT OF ADMIRAL LUSK

Admiral LUSK. Thank you very much, Mr. Chairman. I am delighted to be here. I am delighted to see you and also my former boss, Senator Adams.

We certainly do remember you, sir, and with fondness.

Admiral Yost asked me to pass on to both of you his best respects and his regret that he is unable to be with you today.

As you know, President Bush has dispatched him to Alaska, and he is up there supervising or overseeing the cleanup efforts. He is airborne, right now, in fact.

I will take advantage of the offer you made, sir, and will greatly condense my statement. I will submit the entire statement for the record.

Accompanying me today, Senator, are several of our staff. We have the Chief of the Office of Navigation Safety and Waterways Sevices, Rear Adm. Robert Nelson, to my far right. We have the Chief of the Office of Marine Safety, Security and Environmental Protection, Rear Adm. Joel Sipes, on my left. We have the Chief of the Budget Division, Capt. Dave Spade, on my immediate right.

Mr. Chairman, your efforts last year and the efforts of the entire subcommittee were instrumental in obtaining the funding that we in the Coast Guard needed to adequately support our many missions.

You have an understanding of our service and the contributions that our service makes to the Nation. Your continued leadership and your support are essential, sir, if we are to continue ably to serve the Nation.

We look forward to working with you again this year, particularly in the areas of environmental protection and marine safety, which are growing concerns, which we both share.

As we begin our 200th year of service, our missions have never been more important to the Nation. For 200 years we have applied, and we will continue to apply, our basic multimission expertise to changing national priorities.

I would like to give a couple of examples, sir, of our multimission unit capability.

We have a number of our units that have been brought up to the area of Valdez. Among those units is the Coast Guard Cutter *Rush*. This is a 378-foot high-endurance cutter, that is now serving as our afloat command center in Prince William Sound, providing air traffic control and advisory coverage for the multitude of aircraft that are now in the Valdez area. Before being diverted to serve there, *Rush* was escorting a Japanese oil tanker, which she had just seized for fisheries support violations. The Captain of the *Rush* placed a team on the Japanese vessel to accompany it to port and then proceeded to Prince William Sound.

This class of cutter is also a very important element of our drug interdiction efforts, and it is one of our most capable military defense response units.

Let me also tell you about the Coast Guard Cutter *Sedge*. This is another unit that is up at Valdez. She is a 40-year-old 180-foot oceangoing buoytender homeported in Homer, AK, which is also on-scene, assisting with the cleanup. In the past 3 months, *Sedge*

had been underway 77 of 90 days, in true multimission fashion, conducting military operations with the Air Force, responding to a potential oil spill at Kodiak, then a major search and rescue case nearby, before spending 6 weeks correcting aids to navigation discrepancies caused by severe winter storms. In fact, one aid that *Sedge* serviced, to ensure that it was operating properly, was the buoy that marks Bligh Reef, where the *Exxon Valdez* was aground.

Sedge had just returned to her homeport when she was dispatched for the Valdez cleanup, where she is deploying containment booms and skimmers, and serving as a logistics platform for smaller craft. Two of her sister ships are similarly employed.

I mention those ships, sir, just as examples. Those two classes of cutters—the 378-foot cutter and the 180-foot buoy tender—are two of the issues that do appear in our budgetary priorities this year. I mention them only to show their importance to the Nation and their multimission capability.

We have diverted six cutters, six boats, six aircraft, and quite a few hundreds of our personnel to the Valdez area to respond to what is the largest oil spill in our Nation's history.

PREPARED STATEMENT

Admiral Yost's return to Alaska highlights the stronger role the Coast Guard is taking in coordinating the cleanup operations.

[The statement of Admiral Lusk follows:]

STATEMENT OF VICE ADMIRAL CLYDE T. LUSK, JR.

Good morning, Mr. Chairman. I am pleased to meet with you and the other distinguished members of this subcommittee to review and discuss the Coast Guard's fiscal year 1990 budget request. Admiral Yost regrets that he is unable to be here this morning. As you know, President Bush has dispatched him to Alaska to oversee the clean-up effort on the spill resulting from the grounding of the tanker Exxon Valdez.

Accompanying me on this average Coast Guard day are my Chief of Staff, Rear Admiral Bruce Beran; the Chief of the Office of Navigation Safety and Waterways Services, Rear Admiral Robert Nelson; the Chief of the Office of Marine Safety, Security and Environmental Protection, Rear Admiral Joel Sipes; and the Chief of the Budget Division, Captain Dave Spade.

Mr. Chairman, I want to thank you for the extensive effort that you made last year and for your strong support which were instrumental in identifying and obtaining the funds needed to adequately support the Coast Guard's many missions. President Bush and Secretary Skinner have assured me of their strong support for the Coast Guard's fiscal year 1990 budget request. As Secretary Skinner testified, we want to work closely with you again so that together we can keep the Coast Guard working effectively doing the many jobs that are so important to the American taxpayers.

As we begin our 200th year of service, our missions have never been more important to this great Nation. For 200 years the Coast Guard has proven, time after time, that its greatest strength is in its basic multi-mission expertise that gives it the flexibility to immediately respond to changing national priorities.

Our marine environmental protection mission, which has been highlighted in recent days by our response to the disastrous oil spill in Alaska's Prince William Sound is a case in point for our multi-mission nature.

The Coast Guard Cutter Rush, a 378-foot high endurance cutter, is now serving as our afloat command center in Prince William Sound providing air traffic control and advisory coverage for the multitude of aircraft now in the Valdez area. Before being diverted to serve there, Rush was escorting a Japanese oil tanker, which she had just seized for fisheries support violations. The captain of the Rush placed a team on the Japanese vessel to accompany it to port and proceeded to Prince William Sound. This class of cutter is also an important asset in our drug interdiction efforts, and is our most capable military defense resource.

Let me also tell you about the Coast Guard Cutter Sedge, a 40 year old 180-foot oceangoing buoytender homeported in Homer, Alaska which is also on-scene assisting with the clean-up. In the past three months, Sedge had been underway 77 of 90 days in true multi-mission fashion, conducting military operations with the Air Force, responding to a potential oil spill at Kodiak, then a major search and rescue case nearby, before spending six weeks correcting aids to navigation discrepancies caused by severe winter storms. In fact, one aid she serviced, to ensure it was operating properly, was the buoy that marks Bligh Reef where the Exxon Valdez was aground. Sedge had just returned to her homeport when she was dispatched for the Valdez clean-up, where she is deploying containment booms and skimmers, and serving as a logistics platform for smaller craft. Two of her sister ships are similarly involved in the area.

Coast Guard air assets are involved too. An HH-65, embarked on the Cutter Rush for search and rescue, and fisheries law enforcement, is now flying support for the clean-up operation. Our HH-3 helicopters with the same missions and longer endurance are also flying support. HC-130's are flying in containment booms, boats, vehicles, and people. These are the same HC-130's that serve as long-range search and detection platform for search and rescue and law enforcement.

Our people are multi-mission also. We took people doing staff work one day, had Coast Guard aircraft fly them hundreds of miles, and the next day put them to work in support of clean-up operations.

In all, we have 6 cutters, 6 boats, 6 aircraft and approximately 450 personnel involved in the Valdez clean-up operation.

The skills we develop meeting our peacetime mission responsibilities also give us the expertise, assets, and command-and-control structure essential to the critical role our forces play in the Nation's war plans.

We are proud of our search and rescue mission that earned us the nickname "the lifesavers," and of the role we have played in the Nation's outstanding maritime safety record. We ensure the safe and efficient flow of maritime commerce and traffic by maintaining our nation's aids to navigation system. Our port and vessel safety programs are models for the world's maritime nations. As operators of the Nation's only two polar icebreakers, we help protect our national security, as well as our environmental and scientific interests in the polar regions. We enforce fisheries laws and treaties that are essential to that vital segment of our economy. Our work in drug interdiction has increased over the past two decades, along with America's recognition of the need to control this menace. As traditional and new sources of pollution threaten our coastal regions, our responsibilities for protecting the marine environment have become more critical. In addition to our important statutory peacetime functions, we have a significant defense readiness mission to fulfill, in which our active duty personnel and selected reserves play a vital role as part of the Department of the Navy, upon mobilization.

Our request funds only the essential resources we need to meet these responsibilities in marine safety, environmental protection, maritime law enforcement, and defense readiness. our operating expenses (OE) appropriation request funds existing levels of service (except for absorption of a significant portion of the FY 1989 pay raise) plus a very modest amount for upgrades and follow-on operations of new hardware that Congress has funded in recent years. Our acquisition construction & improvements (AC&I) appropriation request provides a program level that we need to sustain our capital plant. And, our reserve training (RT) appropriation continues to fund our plan for phased growth of the selected reserve to meet 95 percent of our wartime reserve mobilization requirements by September 30, 1998.

When you compare our appropriation request levels to our FY 1989 budget, it appears that there is a large increase. But, aside from the $244 million requested for the replacement polar icebreaker, this budget request represents a 3.6 percent increase over our FY 1989 appropriation (approximately the inflation rate), yet our workload continues to grow.

We've done a great deal to reduce our budget requirements over the last decade. We've made significant reallocations of existing resources to meet new priorities. We realigned our field management and support functions, freeing up over 400 staff personnel for transfer to operational duties on our ships and aircraft. By restructuring our headquarters functions, we were able to reduce 140 staff positions. We remain leaders in federal productivity efforts. but, even with all of these economizing measures, the increases requested for FY 1990 are needed to keep up with the expanded missions which congress and the American people expect us to perform.

BUDGET TOTALS

The total budget authority we are requesting is $3,468.9 million. Approximately 65 percent, $2,252.2 million (including $30 million from the boat safety account), is for operating expenses. This appropriation funds salaries and entitlements for most of our personnel, and the operation and maintenance of Coast Guard ships, aircraft and shore units, including facilities acquired through capital investments in recent years.

We are requesting $682.3 million to fund major capital improvements. $244 million is for the replacement polar icebreaker. Most of the balance is for replacement, renovation, or modernization of multi-mission facilities.

We need $73.8 million to fund a Selected Reserve strength of 12,950, an increase of 850 members.

The $19.0 million we are requesting for research and development will fund the development of techniques, methods, hardware and systems that will contribute enormously to the productivity and effectiveness of our operating forces.

We are requesting $15 million for boat safety grants to States for their use in developing and implementing a coordinated Recreational Boating Safety Program for the Nation.

The $420.8 million requested in the retired pay account funds annuities and medical entitlements for retired military personnel, their dependents and survivors.

Overall, our request supports a level of 38,252 military and 5,589 civilian full time equivalents.

Our request does not include the $2.3 million required for the Bridge Administration Program, on the assumption that legislation will be enacted transferring that program to the Army Corps of Engineers. The Coast Guard has worked closely with the Army Corps of Engineers, and I support the transfer of this function.

OPERATING EXPENSES (OE)

We are requesting a $130 million increase in our operating expenses appropriation. $50 million of the increase funds built-in changes such as a portion of the recently enacted pay raise and a 3.6 percent cost of living increase which are necessary to maintain our present level of service in FY 1990. The remaining $80 million has two components.

$40 million is needed to maintain and upgrade some of our capital assets, and for some badly needed "people" programs. It includes funds for intelligence operations to improve our law enforcement capability, funding for our growing Environmental Protection Program, and funds to help eliminate our HU-25 spare parts shortfall.

$40 million is for follow-on expenses necessary to operate and maintain *new* capital assets such as: the E-2C Hawkeye surveillance aircraft to be transferred from the Customs Service, HH-65 helicopters, aerostats, post-FRAM 378' high endurance cutters, and island class patrol boats. These assets are critical for meeting our drug interdiction responsibilities, and they are also available to other missions as dictated by national priorities.

Our FY 1990 budget request includes, as part of our funding base, the $200 million that we are receiving from the DOD appropriation in 1989 ($60 million in funding and $140 million in services-in-kind). This money is absolutely essential—we couldn't do business without it. I appreciate the support of those who recognized our need and worked to include funds in the DOD appropriation for the Coast Guard. However, my position and the administration's position is that funding for the Coast Guard belongs in the Department of Transportation appropriation bill. With congressional report language last year stating that FY 1989 would be the last year that DOD would provide funds to the Coast Guard, I am increasingly apprehensive about this $200 million. As the budget committees make their section 302a allocations, and the appropriations committees make their section 302b allocations to their subcommittees, it is critical that this $200 million be accounted for in Function 400.

There is no slack in our budget. We must continue to fund the operating costs for the resources we already have so that they can operate to their full capabilities in their many mission areas. And, we are asking for an increase to our budget base to pay the operating costs for new facilities coming on line—new aircraft and cutters, modernized cutters, and upgraded weapons and sensor systems.

We need to review our marine environmental protection capabilities to address the growing threat of maritime pollutants.

We all recognize that the commitment to combat the flow of drugs into this Nation must continue. Congress has made this clear with the anti-drug abuse act of 1988, which provided additional resources for the Coast Guard and other Federal

law enforcement agencies to "hold the line" against the importation of illegal drugs. President Bush has made clear his commitment by amending the Coast Guard request to increase drug interdiction funding by $10 million. Our drug law enforcement effort is necessary until the long-term solution of demand reduction can take hold. We need your support to continue our role in the drug war. It is not an easy fight, but we must stay the course. The American people expect and deserve no less.

ACQUISITION, CONSTRUCTION AND IMPROVEMENTS (AC&I)

Over one-third of our AC&I request, $244 million, is for a replacement polar icebreaker a national asset. Studies on polar operations have repeatedly substantiated and confirmed the need for additional polar icebreaking capability to meet national security requirements, protect our Nation's economic competitive interests and meet the United States' international treaty requirements in the Arctic and Antarctic. Since 1987, our icebreaker fleet has dwindled from five to only two. We are now at the point where we are unable to respond to all of the Nation's many needs in the polar regions.

Aside from the icebreaker, the FY 1990 AC&I budget continues to be dominated by multi-year projects, such as the Fleet Renovation and Modernization (FRAM) Program for our 378-foot cutters and the purchase of our last eight, of a buy of 32, medium range recovery (MRR) helicopters. We also have a small amount of relatively fixed expenses for project support, and a few multi-year programs which require annual funding, such as minor AC&I, waterways, and family housing.

Less than 14 percent of the AC&I budget (except for the polar icebreaker) is for new projects, and most of this is devoted to replacement assets—shore facilities, small boats, and spare parts for existing aircraft. Less than 3 percent of this AC&I budget is devoted to truly new initiatives. This modest amount, about $20 million, will provide for safety and mission enhancements (such as the local user terminals for the search and rescue satellite network and the Talon helicopter tiedown system for the safety of our shipboard pilots) and mission enhancements (such as the active gated television and portable intelligence system).

Aside from the icebreaker, this budget focuses on high priority requirements for renewing our present capital plant. Several projects have been phased to defer, to the outyears, all but the immediately essential costs. This budget also begins an attempt to turn the corner on the replacement of our somewhat neglected shore plant. This is a serious concern, since our backlog of postponed projects is growing at an increasing rate.

RESERVE TRAINING

The Coast Guard Reserve provides trained units and qualified personnel for active duty in the Coast Guard in time of war or national emergency, and at such other times as national security requires. In the course of training to meet these responsibilities, Reservists augment the active duty Coast Guard performing peacetime missions during normal and peak periods of operations, as well as in times of domestic emergencies.

We have embarked on a 10 year plan to bring our Selected Reserve strength up to a level which meets 95 percent of our highest priority mobilization requirements. Our budget request adds 850 Reservists to raise our Selected Reserve Force to a funded strength of 12,950 by the end of FY 1990. The additional personnel will improve our ability to provide security for military-essential facilities in the Nation's ports, and to extend protection to the waterways leading from those facilities to the open seas. Failure to accomplish these missions would severely weaken our Nation's ability to safely and efficiently outload supplies and personnel from U.S. domestic ports. The increase in FY 1990 follows our 10-year Selected Reserve growth plan and represents a 7 percent growth rate. The requested increase will enable the Coast Guard Selected Reserve to meet 65 percent of its minimum mobilization requirements.

SUMMARY

We are a ready, multi-mission force with a tradition of responding to changing national maritime priorities over the past 200 years. To meet today's responsibilities to the Nation, we must have the necessary funding, people, training, and equipment to get the most from the resources you have recently provided for the job at hand. Our FY 1990 budget request is austere but necessary to do the job today and to develop the basic maritime expertise the Nation will need in the future.

I ask for your support for fully funding the Coast Guard budget request. The Coast Guard is a wise investment.

Mr. Chairman, I know that the Coast Guard's marine environmental protection mission has long been a major concern of yours. I know that you have traveled to Valdez and seen the effects of the largest oil spill in our Nation's history. I also know, from your discussions with the commandant, that you planned to closely review our marine environmental protection mission capabilities, during this hearing, long before the Alaskan oil spill occurred.

Mr. Chairman, the Coast Guard will continue to work closely with all concerned in monitoring the clean-up. We will continue to see that Federal laws and regulations are adhered to and that Federal responsibilities are met. And, in the post-accident analysis, all parties must cooperate to identify the lessons to be learned from this tragic spill. We must do everything reasonable to minimize future accidents like this anywhere in U.S. waters. We need to review the entire system to improve the safety of transporting hazardous cargo in our waterways. We must reexamine the plans, the people, and the equipment of both the regulators and the industry we regulate. I pledge the Coast Guard's full support and cooperation with this committee and other interested parties in meeting these objectives.

Mr. Chairman, I'll be pleased to respond to questions you and the members of the subcommittee may have.

BRIEF SUMMARY OF CLEANUP OPERATIONS

Senator LAUTENBERG. I would like you to know, Admiral, that I have that map, a big map of Alaska on the wall in this New Jersey Senator's office because it means so much to us nationally. It represents kind of a benchmark for us in terms of how we deal with problems, and I look at that map, and since I spent those few days up in Alaska, I have familiarized myself with the area very well. Also, since I am an amateur navigator of a small boat and am aware of navigation marks and things of that nature, I watched the flow of the material with dismay, to see how far it has extended.

We are very interested, though, again, in some reform and in the review you are about to give us.

Admiral LUSK. If I might say, sir, my third assignment in the Coast Guard, after I graduated from the Academy, was to Kodiak, AK. Of course, you naturally think of things in terms of those things that have been near and dear to you in your past. When I first heard of this spill, the first thing I thought of was Afognak Island and Kodiak Island, and I wondered about them, too.

So I have a similar concern.

Senator LAUTENBERG. You mentioned in your comments that there was a potential spill at Kodiak. Did I hear you correctly?

Admiral LUSK. As we go through this, you will see that there is the possibility, even in this case, of oil going down toward Kodiak.

Mr. Chairman, now, with your approval, I will ask a member of my staff, Lt. Cmdr. Wayne Hollingsworth, to give the committee a brief summary of the current status of the spill and of our cleanup operations.

STATEMENT OF COMMANDER HOLLINGSWORTH

Commander HOLLINGSWORTH. Good morning, Mr. Chairman.

I am Lt. Cmdr. Wayne Hollingsworth. I work in the Environmental Response Division at Coast Guard headquarters.

Just after midnight on March 24, the tankship *Exxon Valdez* ran aground on Bligh Reef, while outbound in Prince William Sound. It had departed from Valdez.

The vessel spilled more than 10 million gallons of Alaskan North Slope crude oil into the Prince William Sound.

The predesignated Federal onscene coordinator for this incident is the Marine Safety Office at Valdez. The onscene coordinator's responsibility is to oversee the cleanup operation.

In doing this, he must ensure that the response is timely, adequate, and minimizes damage to the environment.

Exxon relieved Alyeska of the financial and logistical responsibility for the cleanup at noon on March 24. The Federal Government and Exxon have deployed tons of equipment and over 1,000 people in support of the cleanup.

The Coast Guard resources onscene, as of this morning: we have increased the number of cutters to eight; there are six aircraft; and over 800 people are onscene.

There are almost 200 other Federal employees also onscene.

The Department of Defense has been involved since early in the incident. Twenty-two Navy skimmers have been deployed in both Prince William Sound and other areas of the Gulf of Alaska. Over 35,000 feet of Coast Guard and Navy boom have been deployed.

The Air Force has been heavily involved in transporting both military and commercial equipment to Alaska.

A DOD assessment team is onscene, in Valdez, to evaluate where other DOD resources could be used.

Exxon has contracted 150 vessels and 18 aircraft. They have 38 skimming systems in operation, and they have deployed over 210,000 feet of boom, and an additional 150,000 feet of boom is en route.

They have employed somewhere between 800 and 1,000 people also.

The cleanup phase of the response involves three parts. Part 1 was to eliminate the threat of future pollution by offloading the *Exxon Valdez.* That was completed on April 5, and after that, the *Exxon Valdez* was moved to a point just west of Naked Island.

At this time, a damage assessment is being conducted. We do not know the exact time when this will be done, nor do we know where the vessel will be taken to conduct permanent repairs.

Part 2 of the cleanup phase involves protecting the sensitive areas in Prince William Sound. The primary areas are where the four fish hatcheries are located: one in Esther Island; one in Main Bay; one in Eshamy Bay; and one in Sawmill Bay. These areas were boomed, and we have added more boom to them. We constantly check the booms to make sure that no oil has gotten into the hatcheries. At this time, no oil has penetrated the booms.

Part 3 of the cleanup phase is the actual cleanup. This will be the most time and labor-intensive portion.

The actual cleanup is being done mostly using mechanical means. Dispersants and burn-off techniques have been used on a limited basis.

Throughout the cleanup, the high viscosity of the weathered oil has caused the skimmers to operate at a below normal capacity.

Up to this point, we have recovered over 800,000 gallons of the oil. NOAA estimates that 3.2 million gallons have evaporated; 460,000 gallons have been dispersed; and approximately 5.5 million gallons remain.

Of the 5.5 million gallons, NOAA estimates that one-third is on the beaches in Prince William Sound, one-third is floating in the various bays and harbors in Prince William Sound, and one-third is in the Gulf of Alaska.

Throughout the incident, the oil has moved in a southwesterly direction, from the point of the grounding through Prince William Sound, and exiting through Montague Strait.

The impacted areas, the most impacted, have been the area around Naked Island, the Northern and Southern parts of Knight Island, the area around Evans Island—which included Sawmill Bay, where one of the hatcheries is located—and along Green Island and Montague Island.

At this time, the observed oil and sheen in Prince William Sound are decreasing, and have been decreasing since the incident happened. Overflights report only 10 to 15 percent of the open water has sheen and mousse. Most oil will be in the various bays and harbors.

Senator LAUTENBERG. Mousse is a reference to the thickened part of this spill?

Commander HOLLINGSWORTH. Yes, sir; because most of the oil is now contained in the various harbors. We have started what we are calling booming the oil in, as part of our cleanup operation.

At this point, any additional beach impact would be caused by oil coming from the bays and harbors and being washed down through the open water and onto the various beaches.

Therefore, we are booming the oil into the harbors, where it is already naturally contained, and then deploying the various skimming systems to those areas.

Beach cleanup has been going on in the Naked Island area. Approximately 85 people are working there now. However, in the next few days, Exxon will beef that up by up to 500 people, as they start their low-pressure washing operations in this area.

We have also been using fishing vessels with herring nets, in the Montague Strait, to help break up the oil as it enters the Gulf of Alaska.

Breaking up the oil will increase the chances for natural dispersion and degradation.

Let me show you a larger chart to give you a better reference.

This is Valdez here [indicating]; this is the Prince William Sound area [indicating]; this is Kodiak Island.

This is the community of Seward, and this is Resurrection Bay [indicating].

The oil that has gotten into the Gulf of Alaska has proceeded primarily in a southwesterly direction. The latest update on the leading edge is in an area approximately 80 miles from Prince William Sound and 60 miles from Afognak Island. This is Afognak Island [indicating].

The impacted areas that we have observed so far have been the Eastern portion of Cape Resurrection and the Chiswell Islands, which are right in here [indicating].

At this point, the Marine Safety Office in Anchorage has been very active in staying ahead of the spill. They have assisted the Seward area, the Kodiak area, and the Homer area in developing

contingency plans and getting equipment necessary to protect their sensitive areas.

There are two Coast Guard cutters assisting two Navy skimmers that are trying to pick up the oil just east of Cape Resurrection.

There is another Coast Guard cutter that is coordinating the efforts of fishing vessels, in Bligh Sound here [indicating], trying to break up the oil with herring nets. A Coast Guard cutter has been heavily involved in deploying equipment and moving it from Kodiak to Afognak Island, to the various sensitive areas.

Equipment has also arrived in Homer, and we have a Coast Guard cutter that is monitoring the traffic that is entering Cook Inlet. We don't want any oiled vessels going into that area. So, if they are determined to be oiled, they are moved into a vessel washing area.

Exxon has requested to use dispersants in the Gulf of Alaska. This has been approved.

There was a planned application yesterday. However, poor weather canceled that, and they will try to use dispersants some time today.

That concludes my briefing.

Thank you.

Admiral LUSK. You puzzled me when you made that last pointer.

Where are they planning the test of dispersants?

Commander HOLLINGSWORTH. It is here, sir [indicating].

Admiral LUSK. OK. That's better.

Commander HOLLINGSWORTH. It is about 30 miles south of Anchorage.

Senator LAUTENBERG. Do we have the skimmers there to suck up this stuff if the containment booms are able to hold it?

Admiral LUSK. That is what they are hoping to do, sir.

WEATHER CONDITIONS

Senator LAUTENBERG. We have almost a total military force in place there, when we take the numbers of people, types of equipment and their numbers, and everything. It is a major effort, and, as I hear it, the cost will far outweigh any of the original estimates. I am talking about the direct costs. The indirect costs are going to take years to assess.

Now, we have been lucky also, haven't we, with the weather? That has turned a little sour, but in the beginning days, we had a relative calm up there.

Admiral LUSK. We had real good weather for 2 days. Then, unfortunately, we had a very bad storm. But even in that, there was a fortunate aspect, sir, because, instead of the storm driving the oil up in Prince William Sound to the north, where it could have done terrible damage, it did not. So we were lucky there.

Then, in the last couple of days, we had weather such that the oil that had been moving toward Afognak so briskly was sort of stalled because of reversal.

Now they are forecasting, at least the weather report that I heard this morning, that they are expecting winds from the southeast at about 30 knots. That is for 2 days from now.

That is not good because that would mean in the Gulf of Alaska we would have the likelihood of the surface currents going up toward the peninsula.

Senator LAUTENBERG. And also, when you get that kind of vigorous wind, the booms are not as effective because they only have a certain diameter or height. If you get any kind of wave action, it washes over.

Admiral LUSK. Yes, sir.

Senator LAUTENBERG. So these are, at best, expedient, temporary measures to give you a chance to get at it.

Admiral LUSK. We do have some 38 skimmers that are now in place, and yesterday, I understand that our reconnaissance flights could not pick up the leading edge quite so well as they had expected. But it was raining out there.

From that, they kind of hope that maybe out in the Gulf of Alaska there was a little bit more dispersion, a little bit more disappearing of the stuff than we had been led to believe might be the case.

Senator LAUTENBERG. In some ways this is like watching a patient on the operating table. Every change, whether it is current or wind, though currents are more predictable, is of concern.

Senator ADAMS. Mr. Chairman, may I ask a question right here?

Senator LAUTENBERG. Yes.

WAVE ACTION AND CURRENTS

Senator ADAMS. Admiral, I fished out of Alitak, at the end of Kodiak Island, for 5 years, and I fished Cook Inlet on up through that area.

The prevailing current and wind through there is a high, rolling set of waves that come up all the way, we used to say all the way from Japan, which would carry up into Cook Inlet, up into the sound.

I would like to know whether or not that standard wave action is occurring because I have considerable doubt that you have booming equipment that would handle rollers of that size, that would prevent a Southeast wind from carrying it up above the peninsula, through Cook Inlet. Do you?

Admiral LUSK. No, sir; we are very worried.

Senator ADAMS. Do they exist any place in the world?

Admiral LUSK. No; we are very worried about something on the high seas, where you have a heavy sea, sir.

Senator ADAMS. My point, Mr. Chairman, is I am not certain that there exists in the equipment throughout the world a boom system or a skimmer system that can handle seas and oil spills of that size and contain it.

I ask that question because I know those waters, and the waters off the coast of Washington, and particularly up in the strait. We have the same kind of water.

In other words, this is not the Persian Gulf, it is not a Gulf of Mexico. You are dealing with 8- to 10-foot rolling waves, aren't you?

Admiral LUSK. Yes, sir.

Senator ADAMS. And they are continuous.

Admiral LUSK. And you are correct in your assessment.

The equipment that we are bringing up there, the commander pointed out, in Homer, and in Seward, and in Afognak, and in Kodiak, will be more for protection of harbors and bays and what have you.

SKIMMER PLACEMENT

Senator ADAMS. That was my other question. You are going to pull your skimmers in and try to protect they bays, as you get out of the weather that is out in the gulf, and just pray that the gulf action will break up the oil. Is that your strategy?

Admiral LUSK. Yes, sir.

We have an 8-foot limitation on our high seas skimmers. There aren't too many high seas skimmers. But an 8-foot wave limitation is what we have.

One thing that is developing, and I had a paper done on this the day before yesterday, is the oil is weathering as it moves down toward Afognak. It is going into the tar ball phenomenon.

With this particular type of oil, there is almost no sediment in it. With this particular type of oil, it does not sink. It has a specific gravity almost the same as sea water.

So it is going to be, and is, turning into little tiny droplets, several millimeters in size. These little droplets are quite weathered. They are the type of thing, as Admiral Yost likes to say, where if you step on them on a beach, you say aw, shucks, you know.

Senator LAUTENBERG. That's not really what you say, but you cannot say what you would say in this hearing. [Laughter.]

Admiral LUSK. That is what we expect will be the most significant impact down in the Kodiak ad Afognak area, and hopefully anything that gets up in the Cook Inlet would be of that type, too.

TAR BALLS

Senator ADAMS. That was my final question, because with viscosity like this, you will either get a large tar ball that sinks or you will get a weathered tar ball that floats. What you are telling me is that it is floating as it comes in there.

Admiral LUSK. Yes, sir.

Senator ADAMS. Thank you very much, Mr. Chairman.

ALYESKA CONTINGENCY PLAN

Senator LAUTENBERG. Thank you very much, Commander. We appreciate your presentation. Unfortunately I wish that you could have stopped the pointer at some point to contain the oil spill, but that was not within your province nor in your mission. But we appreciate the presentation.

When the Alyeska plan was developed, Admiral, for the State of Alaska as part of the Environmental Impact Statement process, did the Coast Guard comment on the potential for oil spills in the Port of Valdez or in the Prince William Sound on the contingency plans?

What kind of comments were offered at the time?

Admiral LUSK. First of all, let me say that the Coast Guard's response plan itself, the ones that we review, are typically those that pertain to the facility itself. They do not pertain to the tank vessel as it is either going toward the facility or leaving the facility.

So those aspects of the contingency plan that we are directly involved in approving, are for the facility—broken pipelines, broken transfer hoses, that sort of thing.

Now, the Alyeska issue was one that was controlled by State permitting processes. As part of the State permitting process, there was a requirement that Prince William Sound, as well as the terminal area, have, for the State, a plan.

Now, the Coast Guard was shown that plan, and the Coast Guard did have an opportunity to comment. I understand that our comments focused primarily on the failure of the pipeline—on such things as the maximum potential spillage for any section of the pipeline—for the various preventative things that could be done, and for reporting requirements.

CONTINGENCY PLAN SPILL SIZE

Senator LAUTENBERG. What was the Coast Guard's estimate of a maximum spillage possibility? Do you have a figure for that?

Admiral LUSK. It wasn't a Coast Guard estimate, sir. But I understand the Prince William Sound contingency plan, that Alyeska prepared for the State, was one that envisioned a spill about one-third of the 10 million gallons that was lost. This would make it about one-fifth the capacity of the tanker.

COAST GUARD REVIEW

Senator LAUTENBERG. So, the Coast Guard did not give its approval or review of the navigational possibilities of a problem?

The Service must have been asked about the ability to navigate the channel, about what kind of supervision a harbor like that would require. That is kind of SOP for you.

Admiral LUSK. Yes, sir.

We certainly have a certain amount of control over the construction of a ship, the aids to navigation, the pilotage requirements, and all those sorts of things.

But we do not have a requirement for coming up with a containment plan for a situation such as the one that the State required there.

Senator LAUTENBERG. So, even accidents like this one, that happen at some distance—what is the distance from the loading dock, there, or, let's say, through the narrows, after you get through the narrows?

Admiral LUSK. To where the accident happened?

Senator LAUTENBERG. Yes; to Bligh Island there?

Admiral LUSK. Commander, do you have a good estimate of that? You can pick it off the latitude.

Commander HOLLINGSWORTH. It is probably about 17 miles.

Admiral LUSK. Seventeen miles, sir.

Senator LAUTENBERG. The whole length of the passage through Prince William Sound is about, what, 60 or so?

Commander HOLLINGSWORTH. The total is about 24.

Senator LAUTENBERG. It's 24 miles?

Admiral LUSK. He is talking about down to the Cape. It's about 60 miles, sir. Sixty is pretty close.

VTS CHANNEL MONITORING ALARM

Senator LAUTENBERG. What we saw there were some very obvious responses to potential problems.

One of them, Admiral, that I concern myself about, was the vessel traffic monitoring system, and, frankly, why there was not some kind of alarm when a vessel strayed from that channel.

It is fairly simple stuff to put into an electronic system. Why wasn't there an alert to the office that was doing the monitoring? You have the capacity to pick out a vessel at that point going further south. I saw it on the screen myself.

When I asked the person who was monitoring the scope at the time, he said yes, he saw it, and I said well, why don't we have something that very clearly delineates the channel because it is easy on a monitoring scope to draw lines like that and to say anything that strays out of there that is 300 feet or some unit of measure could easily trigger off an automatic response?

He said well, (*a*), the program is not working, that we have a program card, but it's not very good; and (*b*) I know the area.

Well, that is what happened with the third mate and the whole management of that ship. Someone said they knew the area.

But we certainly ought to build in as much automatic protection as we can get. I would hope, since that area is under—is it under full-scale operation again?

Are they loading ships every day?

Admiral LUSK. I am not sure whether they are doing it at night now.

Admiral SIPES. They are loading, but they are only moving in the daytime.

Admiral LUSK. Yes; I believe the movement is only in daylight hours. But I cannot be sure of that, sir.

TUG ESCORTS FOR TANK VESSELS

Senator LAUTENBERG. When I was up there, they had a tug on either side of vessels going through the area, which made sense, two traffic cops on duty. With an accident there that is of the proportion that we saw, the cost seems justified. I understand that program was dropped very shortly after it was initiated.

Are any of you familiar with that tug escort?

Admiral LUSK. They say it was reinstated. The Governor asked for it to be reinstated, and we did that.

Senator LAUTENBERG. Whose decision was it to drop that requirement?

Admiral LUSK. Admiral Sipes suggests that it was a local decision by the Coast Guard. But it has been reinstated, I understand. But it was a local decision.

Senator LAUTENBERG. Why did the Coast Guard first propose it and then drop it so quickly?

Admiral LUSK. I don't know the answer, sir.

Senator LAUTENBERG. I would be interested in finding out about that.

[The information follows:]

Prior to the *Exxon Valdez* grounding, the Coast Guard's policy was that tug assistance was required for loaded and partially loaded tank vessels departing the Valdez Narrows Traffic Area. Tankers were normally escorted by one tug. Additional tugs could be required under certain circumstances, as determined by the Coast Guard Captain of the Port/Vessel Traffic System Valdez. However, two tugs were rarely required.

On March 24, 1989, the *Exxon Valdez* was escorted by one tug, until it transited the southern terminus of the Narrows.

Since reopening the Port of Valdez on March 28, 1989, the Coast Guard has modified its policy to require a two tug escort of the tank vessels, and extended the area of requiring a tug escort to the Bligh Reef Buoy. This policy has not been changed.

The State of Alaska has placed additional requirements on tank vessels transiting the area. The State extended the two tug escort requirement to five miles south of Hinchinbrook Island.

Admiral LUSK. If I could pursue, just for a moment, the suggestion you made about making additions to our radarscope. I think those are good ideas, and we talked about those once on the phone. I am asking that that be looked into.

One thing that we had as a system, or our approach to it, that possibly caused, you mentioned, a complacency—though I'm not sure that is the right word—we focused on our VTS servicing only the narrows area. Commander, would you point that out on the chart?

And so, the whole orientation of our watch standards and our watch protocols were all aimed to where we thought the biggest hazard was.

Senator LAUTENBERG. But there is always a pilot aboard there?

Admiral LUSK. Yes, sir; always a pilot aboard.

VTS FOCUS

Senator LAUTENBERG. And accidents never or rarely happen in those places because the attention is so focused.

Admiral LUSK. You are so careful. Right.

Then the second part of our system was from, basically, the narrows down into the traffic separation lanes, which you see there on the chart, where the Commander is running his pointer [indicating].

Here we have a downbound lane and an upbound lane, and they were separated by a considerable difference.

In view of the wide area there, in view of the fact that there are so few large vessels that are coming in and out, and in view of the pilotage requirements, we did not have that system under our VTS. In fact, our watchstanders were not told that they had to watch vessels once they cleared that narrow, congested area and the pilot was dropped off. So our watchstanders were not told to watch down there near Bligh.

Now, our radar coverage, as you say, did go down south of Bligh, but just a little bit, not an awful lot.

Of course, the Commandant did implement a temporary order, and we are, to the maximum extent of our capability, now plotting vessels down south of Bligh.

Senator LAUTENBERG. But the fellow at the helm, or someone, asked for permission to cross over into the northbound lane.

Admiral LUSK. What he did, as I understand it, and I did see a transcript of the transmissions, though I don't think we have it here, wasn't a question of asking for permission. What he said was that he was going to.

Senator LAUTENBERG. Right.

Admiral LUSK. Now, that happens, and so, it was a question of tacit approbation.

But what he did, of course, is he went from the southbound lane, he crossed over not only into but far past the northbound lane.

Senator LAUTENBERG. What is the distance from the edge of the channel?

Admiral LUSK. What is the difference from the eastbound edge of the northbound lane to Bligh?

Senator LAUTENBERG. Is it a couple of miles?

Admiral LUSK. It is 1½ to 2 miles from the most dangerous edge of the northbound channel.

Senator LAUTENBERG. Was there the green navigation buoy on his starboard side?

Admiral LUSK. Well, red, right, returning. Yes, sir.

There is no question that he went a long way. He not only crossed the dividing strip, but he crossed the whole other lane, and then went 1½ to 2 miles beyond the other lane. And we were not monitoring that.

Senator LAUTENBERG. I want to ask you some questions about the New Jersey area. We have a vote on the floor right now.

Senator D'Amato, who is the ranking Republican member of this subcommittee has asked for a couple of minutes to ask some questions, and I am pleased to give him the time.

Senator D'AMATO.

CONTINGENCY PLAN EXERCISES

Senator D'AMATO. Thank you, Mr. Chairman.

Admiral, let me ask you this. As it relates to other ports, now, where you have this kind of heavy traffic, you would be conducting some exercises as it relates to the monitoring of the tankers that bring their cargo in and out, and also some coordinated operations as they relate to spill control, drills, and exercises. Will that be something that on the agenda becomes a priority?

Admiral LUSK. Sir, there is no question but what our emphasis is going to be going in that direction. The President told us that we had to do a survey and present to him a report of the adequacy of these things nationwide. So we are very definitely concerned.

PETROLEUM AND CHEMICAL PRODUCTS TRANSPORTED IN NEW YORK HARBOR

Senator D'AMATO. As it relates to New York Harbor, do you have any idea as to how much petroleum product and chemical product are moved in and out?

Admiral LUSK. Sir, we anticipated, because of the Senator's staff's kind comments, that there might be some questions on this. I have brought with me today our senior marine safety person

from both the New York and Philadelphia areas. So I have those two captains with me today.

I was hoping, with the Senators' tolerance, that I could ask each of them to give a synopsis of both the New York and the Philadelphia areas.

RECOVERED OIL

Senator D'AMATO. Well, I will not be able to be here for that because there is a Banking Committee markup that I must attend.

But I think it is important and I certainly look forward to sharing that information and to learning about it.

Let me ask you just one other thing.

You said that approximately out of 10 million gallons, one-third has evaporated, one-third has gone up on some of the shoreline, and another one-third is out there, basically in the slick.

Is that right?

Admiral LUSK. About that, yes, sir.

Senator D'AMATO. How much, if you have an estimate, are you able to skim up on a daily basis? I understand that if you have a tidal action that is beyond the 8 feet, you are not going to get anything, or much at all, though you may get some more dispersion.

But are you pumping up any at all to speak of?

Admiral LUSK. Yes.

Commander, what was it you said they picked up—800,000 gallons?

Commander HOLLINGSWORTH. Yes, sir.

Admiral LUSK. Yes; they have picked up 800,000 gallons so far.

Senator D'AMATO. So, even when that slick is out there, if you have weather conditions, you are able to get those high seas skimmers in operation and you have the potential for picking up some?

Admiral LUSK. Yes; if it is of the right viscosity, we can.

There are limits, though.

Senator D'AMATO. For example, yesterday, if you have a report, what were you able to skim up of that slick that is out there?

I want to ask you things that people want to know. People want to know about this bomb that you have out there. Is it becoming less volatile. I think to some extent it is.

Admiral LUSK. Oh, yes.

Senator D'AMATO. Are you making some progress in picking it up, or do we just have to hope and wait that when it hits, it is going to hit someplace or is it going to be dispersed, or what?

How much were you able to pick up yesterday?

Admiral LUSK. I will ask the commander to give me that figure if he has it.

Commander HOLLINGSWORTH. Sir, they picked up approximately 8,000 gallons.

Admiral LUSK. They picked up 8,000 gallons yesterday.

Now, yesterday, of course, the weather was not perfect. We had rain and what have you.

But I would suggest that most of the volatiles have left. Now you are not dealing so much with a problem of explosion or burning. You cannot burn that anymore. We are not able to burn it. We tried.

Now we are dealing with something that very definitely has a pollution potential.

I think the real big problem that we had, where the real big bomb was, was in the tank vessel. After the accident, there were still some 43 million gallons that were left. That is what we were super concerned about.

But, right now, the oil has weathered. It has weathered and dispersed. It is no longer in one great, big slick that you can attack easily. Now you have streamers of mousse and streamers of tar balls out in the Gulf of Alaska. They are rather difficult even to locate, unless you are in a plane, and they are rather difficult to pick up.

Some of them are beyond our capabilities.

LENGTH OF THE CLEANUP

Senator D'AMATO. Is it safe to say that this nightmare is going to be with us to some extent for a lot of years in terms of the cleanup?

Admiral LUSK. Well, certainly the cleanup in Prince William Sound is going to take months, not days.

I did hear one rather encouraging environmental assessment. They said that the cleanup was going better than they expected and that the oil was easier to pick up.

I cannot be more definitive than that. But that was about the only encouraging thing that I have heard about this.

Senator D'AMATO. I thank you.

I thank the chairman. I know that we are in the middle of a rollcall vote, and they close us off precisely. We used to get a little time latitude.

Thank you.

I will have some other questions for the record, Mr. Chairman.

Senator LAUTENBERG. We are going to ask your indulgence while we adjourn for about 5 minutes. If you would just stay at the witness table, we will go to vote and will be right back.

[A brief recess was taken.]

OIL SPILL RESPONSE EQUIPMENT FOR PUGET SOUND

Senator ADAMS [presiding]. Senator Lautenberg will be right back. But I don't want anyone to feel that we are not using our time as best as possible, so I will ask a few questions. Then, as soon as he gets back, I know he wants to proceed.

Shifting ground with you for a minute, my questions will be directed toward Puget Sound.

I have sent to Admiral Yost a letter with a series of questions. But one of the things that I am most concerned about this time is the following.

Admiral, it is my understanding that most of the equipment for oil spills response in Puget Sound is in private hands, just as it was at Valdez.

Is that correct?

Admiral LUSK. My understanding is that a tremendous amount of it is, sir. But I could not say what percentage.

Senator ADAMS. Would you submit that to the committee in writing, so that I could review it.

Admiral LUSK. Yes, sir.

[The information follows:]

Approximately 80 to 90 percent of the equipment for oil spill response in Puget Sound is in private hands. An inventory of spill response equipment in the Puget sound area, as of April 19, 1989, is as follows (Please note that some of this equipment is currently being used in Alaska):

SPILL RESPONSE SUPPLIES IN PUGET SOUND AREA

	Contractors	Clean Sound Cooperative	Major facilities	USCG MSO/PST	U.S. Navy	Total
Booms: [2]						
Harbor	15,000	.....	5,930	2,650/200	500	24,255
Equipment in Alaska	3,500	.....	.....	.....	.....	.....
Coastal	18,500	30,000	11,650	.....	17,000	77,150
Equipment in Alaska	.....	12,800	.....	.....	.....	.....
Offshore	.....	.....	.....	0/11,500	.....	11,500
Equipment in Alaska	.....	.....	.....	6,000	.....	.....
Sorbent	8,700	18,000	1,820	250/0	800	29,570
Absorbent material:						
Pads (bales) [3]	1,080	120	114	14/0	72	1,400
Sweeps (bales) [4]	460	60	13	1/0	.....	534
Rolls (150 by 3)	191	36	22	.....	.....	249
Blankets (case) [5]	150	.....	25	.....	4	179
Oil snares (case) [6]	307	60	90	.....	.....	457
Straw (bales)	.....	.....	50	.....	.....	50
Fiber pearl (bales)	75	8	384	.....	550	1,017
Excelsior (bales)	.....	.....	11	.....	.....	11
Miscellaneous:						
Skimming vessels	3	6	3	.....	5	17
Equipment in Alaska	2	1	.....	.....	.....	.....
Rope mops	17	4	1	.....	.....	22
Surface skimmers	26	13	9	0/3	8	59
Vacuum trucks	12	.....	5	.....	4	21
Spill response vessels	28	10	22	0/8	17	65
Vehicles	38	4	32	5/7	.....	86
Pumps	69	.....	4	0/11	8	92

[1] Sorbents are maintained at various units
[2] Length expressed in feet
[3] 50 pads per bale
[4] 100 ft. per bale
[5] 30 blankets per case
[6] 30 snares per case

PROBLEMS WITH TRAFFIC CONTROL SYSTEM

Senator ADAMS. The second thing is the vessel traffic control system. I remember when we were putting it in 10 years ago. It is my understanding that there are shadows or areas where you cannot follow the vessels, both in the north sound, and in the south sound.

Would you check on that and give me an answer, or can you give me an answer now?

Admiral LUSK. Well, first, there are shadows.

Second, I do have Admiral Nelson here, and he might be able to partially respond.

Bob?

Admiral NELSON. Yes, sir; there are some shadows.

If you had asked me last week, I would have said they were not significant. We are certainly taking another look at it to see where they are and to see how significant they are.

Senator ADAMS. I would particularly ask you to concentrate on the Port Townsend, Port Angeles Straits area, and the islands coming down off Bainbridge.

Admiral NELSON. Yes, sir.

CONTINGENCY DRILLS IN PUGET SOUND

Senator ADAMS. Admiral, do you have practice drills on Puget Sound for accidents, as occurred in this case?

Admiral LUSK. We do have exercises in different parts of the country, sir. I just cannot speak to how recently they had one there. There is a certain amount of discretion for the local people in charge there. I just don't have that information.

Senator ADAMS. All right.

I would appreciate it if you could provide me with that information within 1 week.

Can you tell me within the next week what the Coast Guard response to a spill in Puget Sound will be, your contingency plan? I am sure you have one. I would like to see them, and I wanted to state this in public, so that we have an understanding of what we are dealing with. I know that Senator Lautenberg is going to want to do this in the New York area.

But we are very concerned in Puget Sound because we have had a recent accident off the coast, at Grace Harbor. We had the towline break on one vessel, and we had another vessel sink off Anacortes, which we have not yet had a full report on, where the buoyancy section was filled with oil after the modification had been approved by the Coast Guard.

[The information follows:]

The Coast Guard would respond in accordance with the National Oil and Hazardous Substances Pollution Contingency Plan (Title 40, Code of Federal Regulations, Part 300), and the Marine Safety Office Puget Sound local contingency plan.

Upon notification of a spill, the Coast Guard immediately responds in accordance with the above mentioned plans. On the basis of available information, the Coast Guard: (1) evaluates the magnitude and severity of the spill, (2) determines the feasibility of removal, and (3) assesses the effectiveness of the removal action. The Coast Guard ensures that adequate cleanup efforts are conducted by the responsible party. However, if the spiller is unknown, unable, or unwilling to properly clean up the spill, the Coast Guard institutes federal response actions and later seeks reimbursement from the spiller through litigation. In cases where the spiller is unknown, federal cleanup costs are absorbed by the Pollution Fund.

VTS CONTROL

Senator ADAMS. I have another question on whether or not you give instructions from your vessel traffic control system to the pilots and to the helmsmen as they are coming into the sound if you feel that they are in violation or out of the shipping lanes.

Admiral NELSON. We do have tracklines, and if they deviate from those laid down tracklines, we advise them.

It is an advisory type of system. We do not give rudder commands or helmsmen orders.

Senator ADAMS. Would you like that power?

Admiral NELSON. No, sir; we could not incorporate that into a vessel traffic system, like they do on an air traffic system.

Senator ADAMS. All right.

There is a ban, is there not, still in effect, the one we put in in 1979, on no tankers over 125,000 deadweight tons in the sound?

Admiral NELSON. Yes, sir.

Senator ADAMS. That is still in effect?

Admiral NELSON. Yes, sir.

TYPES OF VESSELS TRANSITING PUGET SOUND

Senator ADAMS. Would you give me in written form the type of vessels that we now have traversing the sound and their points of entry, particularly to Tacoma, Seattle, and Anacortes?

Admiral NELSON. Yes, sir; we would be glad to do that, Senator.

Senator ADAMS. Thank you.

[The information follows:]

The table below is a breakdown of the number and types of vessels that call on Seattle, Tacoma and Anacortes. The Coast Guard Vessel Traffic Service does not keep these statistics. This information was obtained from the U.S. Army Corps of Engineers 1986 "Waterborne Commerce of the United States." Most seagoing vessels arrive in Puget Sound via the Strait of Juan de Fuca, although there is considerable traffic from the Strait of Georgia.

Port and draft (in feet)	Self-propelled tank vessels	Tank barges	All type vessels [1]
Seattle:			
Below 19	72	1,973	1,160
19 to 35	95	5	54,989
Total	167	1,978	56,149
Tacoma:			
Below 19	27	1,071	6,685
19 to 35	131	1	14,069
Total	158	1,072	20,754
Anacortes:			
Below 19	32	262	13,532
19 to 33	219	1	235
Total	251	263	13,767

[1] This includes not just the self-propelled tankers and the tank barges, but also passenger and dry cargo ships, towboats, and dry cargo barges.

Sizes of these vessels vary greatly. As a general rule, tankers of 25,000 tons and less call on Cherry Point, Ferndale and Anacortes. Tankers calling on Seattle and Tacoma average 40,000 tons but these ports are capable of accommodating larger vessels.

PILOTAGE REQUIREMENTS

Senator ADAMS. The chairman is back, I see.

Thank you, Mr. Chairman.

Senator LAUTENBERG [presiding]. I remember that when I was junior around here, I used to do the same thing. [Laughter.]

I welcome Senator Adams' participation in all things, but in particular in an area such as this.

I would like to discuss some of the problems that we might have in my area, which, again, are those areas in my State that are contiguous areas.

The *Valdez* used a State pilot to transit the narrows as it left the port.

Now, is this a Coast Guard or a State requirement, the pilotage?

Admiral LUSK. That is a State requirement.

There are both Federal and State requirements, sir. Basically, one of the earliest acts of Congress did set aside, to the States, the control of pilotage of vessels that were coming in under a foreign flag.

So, if we have a foreign vessel that is coming in, they are under State authority, and they comply with the State law. In this case, a vessel would have been taking a State pilot.

If they are in the coastwise trade, then they would be typically U.S. vessels, and, as in this case, they would have Federal pilots aboard.

There is an anomaly here, in that just before they get to the narrows, even though a vessel in the coastwise trade and has a Federal pilot aboard, there is an agreement—and I don't know the legal basis for this, but there is an agreement where they do take a State pilot, as well as the Federal pilot, to go through the narrows, in both directions.

Senator LAUTENBERG. Would that be true also of the Philadelphia and New York areas, that if the vessel is a coastwise vessel, then it would have a Federal pilot, and otherwise—New York Harbor has no specific requirement that says—what is it?

Admiral LUSK. If the vessel is coming in coastwise, then he would have a Federal pilot aboard. There is no requirement that I know of in the New York area where someone would be required to have both. That is an anomaly of Valdez. I know of no other place for that.

MONEY AVAILABLE FOR OILSPILL CLEANUPS

Senator LAUTENBERG. Due to the unique circumstances leading to the construction of the Alaska Pipeline, the Valdez spill occurred in the context of a particular set of statutory and regulatory requirements. These are not available to other areas, like Philadelphia or New York.

As a result of the creation of the pipeline, TAPS, as it is commonly called, it created that liability system and, at the same time, a fund of as much as $100 million.

How much money would be available to the Coast Guard to initially attack an oilspill in the Philadelphia or New Jersey/New York regions?

Admiral LUSK. I believe we would be limited to the 311(k) fund.

Senator LAUTENBERG. That is your reserve fund?

Admiral LUSK. Yes, sir; that is the reserve fund.

Senator LAUTENBERG. What is its level right now?

Admiral LUSK. Right now, I understand that just this morning, or last night, we got another $4 or $5 million from Exxon.

Senator LAUTENBERG. That is repayment, however.

Admiral LUSK. Yes; that is the second repayment.

But as of yesterday, I believe it was down somewhere in the neighborhood of $2 million.

Senator LAUTENBERG. What is its maximum?

Admiral LUSK. The maximum that is allowed is $35 million, sir.

Senator LAUTENBERG. Has it ever been at that level?

Admiral LUSK. No, sir.

Senator LAUTENBERG. What is the maximum level it has ever been at?

Admiral LUSK. I think around $22 million.

Senator LAUTENBERG. Is that recently?

Admiral LUSK. That is not recent, sir.

Senator LAUTENBERG. It is my understanding that in recent periods, the maximum level that it has been to is about $10 million. Is that so?

Admiral LUSK. Sir, we started out this year with I believe about $6 million. Remember that in 1988, we had such budgetary difficulties, and part of the reprogramming to allow us to get the $60 million supplemental included a certain amount that came out of the 311(k) fund, sir. I forget how much it was, but it was somewhere around $6.7 million, my adviser tells me.

Senator LAUTENBERG. That's fairly it, around $6.754 million. [Laughter.]

THIRD PARTY LIABILITY

The third party liability is established in the Valdez case. It permits for fishermen and others to recover damages.

What would happen with New Jersey fishermen in the same situation? Is there a third party liability availability for them?

Admiral LUSK. I know of none, sir.

Senator LAUTENBERG. How about natural resource damage?

Admiral LUSK. Sir, excuse me, but I think I might be getting a correction from someone here.

[Pause.]

Senator LAUTENBERG. There isn't any.

Admiral LUSK. That's right, sir. I'm sorry.

FUNDS TO COMPENSATE FOR OILSPILL DAMAGE

Senator LAUTENBERG. I just want the record to reflect accurately, obviously, what might be expected. In the case of the Valdez situation, it is unique.

With all that uniqueness, with all that special concern, we were not able to avoid what took place, nor are we assured in any way that all of the efforts, as extensive as they have been, are going to result in a total restoration of the once pristine and valuable condition that it had.

Now, New Jersey is very dependent on the whole marine industry. It is the second largest industry in the State. We have our shore communities. We have extensive commercial fishing. We have extensive recreational fishing. If we had any damage there, where would we go for recompense damage to our natural resources?

Admiral LUSK. Well, of course, that is one of the reasons why we have been trying to focus for the last few years on the United

States ratifying the CLC and Fund. This is an international regime, where there would be, I believe, $260 million that would be made available for this sort of thing.

We have not ratified it, though.

Senator LAUTENBERG. We have not ratified it. And even if we had this optimistic achievement near at hand, $260 million, you say?

Admiral LUSK. I believe that's correct.

Senator LAUTENBERG. It looks like Valdez is going to use a large part of $260 million before it is finished.

Admiral LUSK. Some of the estimates are, indeed, in excess of a couple of hundred million.

Senator LAUTENBERG. So there would be really nothing available. We are talking about $10 or $20 million in that spill reserve fund that you have, which is really de minimis, when you think of the kind of damage that has occurred.

Admiral LUSK. Yes, sir; and that is not available for third parties.

Senator LAUTENBERG. Right.

Admiral LUSK. That's basically the cost of cleanup. That is what our little discussion was about here.

TANK VESSEL OWNER LIABILITY

Senator LAUTENBERG. You are exactly right, and thank you for the reminder.

The owner of the ship *Exxon Valdez* had an initial liability of $14 million through the TAPS provision. Otherwise, the liability would be limited to $150 per gross ton.

The limits of the liability at $14 million I guess is significantly lower if that vessel—what was the gross tonnage of her? Was it 250,000 tons?

Admiral LUSK. It is 95,000 tons.

Senator LAUTENBERG. It's 95,000 gross tons? Where did I get 250,000 then.

Was that deadweight?

Admiral LUSK. Deadweight tonnage was 212,000.

Senator LAUTENBERG. It's 212,000.

So, obviously, even at 95,000, you are pretty close to the same number, about $15 million.

They are both about $14 million, by coincidence, if my arithmetic is correct.

Does anybody have a calculator there that is better than the one I have?

Admiral LUSK. Sir, there is another act, the Clean Water Act, which has another $14.2 million. But we are not sure whether those two are additive or not. Our lawyers have not figured out that one yet.

Senator LAUTENBERG. Is the diligence of the operator of a vessel in any way dependent on his either financial capacity or liability limits?

Admiral LUSK. Is his diligence?

Senator LAUTENBERG. Do we in any way look at the financial capacity of the operator of the vessel?

Admiral LUSK. Oh, there is a financial responsibility.

Senator LAUTENBERG. Does anybody have a quick estimate of the kind of liability standards that have to be met?

Admiral LUSK. Admiral Sipes.

Admiral SIPES. I believe we have confused the matter, Senator, only slightly.

Under the Clean Water Act, the liability for the vessel for clean-up cost is $14 million.

Senator LAUTENBERG. Right.

Admiral SIPES. Then, under the TAPS fund, there is an additional $86 million, which would come to a total of $100 million, and that is for third party environmental damage.

Senator LAUTENBERG. Right. But that is not the responsibility, in this case, of Exxon. That is the responsibility of the TAPS liability fund.

Admiral SIPES. Yes, sir.

Senator LAUTENBERG. And Exxon's contribution to that fund is something that they negotiated and agreed to.

Admiral SIPES. The total liability of the *Exxon Valdez* is $14 million, otherwise.

Senator LAUTENBERG. Right.

And, once again, is there a financial minimum that an operator of a vessel must hit in order to have its license?

Admiral LUSK. He has to have a certificate of financial responsibility for $14 million.

Senator LAUTENBERG. That's it.

Admiral LUSK. It's $14,250,000 for the Clean Water Act.

Senator LAUTENBERG. For foreign vessels operating in our waters?

Admiral LUSK. Yes, sir.

Senator LAUTENBERG. For foreign vessels as well?

Admiral LUSK. Yes, sir.

Senator LAUTENBERG. Are they bonded and insured?

Admiral LUSK. That's correct.

Senator LAUTENBERG. So there is no reason to believe that anything beyond $14 million could be met nor is it required in any way for licensing these?

Admiral LUSK. That is correct, sir.

Senator LAUTENBERG. OK.

Admiral LUSK. That is why you have heard comments to the effect that we are fortunate it was Exxon. I am sure Exxon is not fortunate that it was Exxon. But the fact that they are acting responsibly here and have the money is a great help.

Senator LAUTENBERG. Yes; it makes a difference if you have $4 to $5 billion in net earnings at the end of a year. It is not a question of generosity. In this case, it is a question of responsibility. And they have been responsible.

I do not want in any way to diminish their postaccident behavior. Others will make judgments about the preaccident behavior.

I want to ask just a couple of other quick questions.

It may be that we will want to invite to the table the port captains who are here with you.

Admiral LUSK. They are both here, sir.

Senator LAUTENBERG. Each of the port captains has a map of the particular area that he is responsible for.

Did you want to quickly run through that?

Admiral LUSK. Would you like New York first or Philadelphia first?

Senator LAUTENBERG. I am a New Jerseyite all the way, and as both these ports affect our State, I am interested in hearing from them both. Why don't you toss a coin. Also, please identify yourselves for the record.

STATEMENT OF CAPTAIN NORTH

Captain NORTH. Good morning, Mr. Chairman.

I am Capt. Robert C. North, Coast Guard Captain of the Port of New York. It is good to see you again.

Senator LAUTENBERG. Yes; we've met, and it is good to see you again.

Captain NORTH. This morning, I want to give you a brief overview of our risk of oilspills in the Port of New York, prevention efforts on the part of the Coast Guard to minimize that risk, and our capability to respond and to deal with the spills when they occur.

The chart that you see is a chart of what we call the Port of New York and New Jersey.

For your orientation, this is the lower tip of Manhattan [indicating], Governor's Island [indicating], the Hudson River, the East River, Upper New York Bay, Lower New York Bay, Raritan Bay, Sandy Hook, and the Atlantic Ocean being out in this direction [indicating]. Here is Staten Island, Bayonne, and the coast of New Jersey, here on the other side of Arthur Kill, which separates Staten Island from New Jersey, and Kill Van Kull, separating Bayonne from the northern end of Staten Island.

On an annual basis, we experience about 28,000 vessel movements into the Port of New York that carry oil, totaling some 443 million barrels. This includes intraport movements.

We average about six tankship arrivals per day from sea. They would be coming up the Ambrose Channel, through the lower bay, under the Verrazano Narrows Bridge; 75 percent of those vessels are anchored in the upper bay, to lighter cargo, to reduce their draft to 35 feet.

SIZE OF VESSELS TRANSITTING THE PORT OF NEW YORK

Senator LAUTENBERG. What size vessels are they that come in there? How big?

Captain NORTH. They would range in the neighborhood of 300,000 to 600,000 barrels. It is approximately 40,000 to 80,000 deadweight tons.

Senator LAUTENBERG. So they are considerably smaller than the *Valdez?*

Captain NORTH. Yes; about one-third to one-half the size.

The majority anchor here to lighter cargo, to reduce the draft to 35 feet. We have a 45-foot controlling draft coming in, to get through Kill Van Kull or down to Arthur Kill.

The remainder either go up the Hudson River toward Albany, or they go through the East River, out to the sound. Those are primarily smaller vessels that could negotiate those channels.

Senator LAUTENBERG. You also have the river traffic, the Passaic River, the Hackensack River?

Captain NORTH. Yes, sir.

The heaviest traffic, tank vessel traffic, including barges and deep draft vessels would be through the Kill Van Kull—Arthur Kill area, with some up through Newark Bay, Hackensack, and Passaic Rivers, some into Jamaica Bay, some through the East River, some to Albany—probably 70 percent of the volume of traffic that goes through this area.

Senator LAUTENBERG. Does the Raritan area have some?

Captain NORTH. Yes, some. We have some tank vessel and tank barge traffic that goes up into the Raritan River. None down to Shrewsbury, in that area.

Senator LAUTENBERG. OK.

Captain NORTH. These vessels would be lightered draft vessels, probably 35 feet in draft maximum, coming up the Raritan Reach, through that area, through the Raritan River.

We have rocky bottoms in the harbor, if you want to consider the Valdez situation. In the area of Bergen Point and Kill Van Kull, on the Hudson River—particularly as you get north of the George Washington Bridge, and into the East River, in the Hellgate area—we have a particular problem of hard bottoms, treacherous currents, and that type of thing.

The bottom, coming in from sea up through the lower and upper bays, is basically mud to hard sand. It is a comparatively soft bottom.

We have approximately 350 oil transfer terminals within my zone of responsibility, and 248 of those are in the Port of New York and New Jersey, the remainder being up the Hudson River and out into the sound.

Again, those are concentrated in Kill Van Kull and in Arthur Kill. There are some others in the East River and the Hudson River, in the Passaic and Hackensack Rivers; but the majority are down in the Kills.

We usually experience about 100 transfers of product to and from a vessel per day. That includes about 1.2 million barrels of product that they move each day to or from the shore.

Each of those facilities is an oil transfer facility that handles more than 250 barrels of product to or from a vessel that can carry that product. Each facility has 300 to 1,000 feet of containment boom. We require access to that boom within minutes. It has to be deployable within 20 to 60 minutes, depending on the configuration of the facility.

SENSITIVE AREAS IN THE PORT OF NEW YORK-NEW JERSEY

Senator LAUTENBERG. Who does the deployment?

Captain NORTH. The facility personnel.

If one would assess the principal risk in New York in terms of traffic, bottom conditions, and numbers of transfers, it would be in the Kills area.

We have some sensitive areas, certainly around the harbor, environmentally sensitive areas, and those would include wetlands within the Kill—Arthur Kill particularly—wetlands up in Newark Bay, the Passaic and Hackensack Rivers, Shooter's Island at the confluence of Newark Bay, Arthur Kill and Kill Van Kull is a bird sanctuary.

We have wetlands along the shore of Raritan Bay and in lower New York Bay. We have a wildlife refuge in Jamaica Bay and a lot of wetland areas. We have various beaches, marinas, and other public areas that would be of interest as well.

Senator LAUTENBERG. And Sandy Hook?

Captain NORTH. And Sandy Hook, yes, sir, with beach along the shoreline, as well as the National Park on Sandy Hook itself, and the park over in Rockaway.

There are efforts to minimize the risk in the form of prevention, and these include enforcement of the pollution prevention regulations, which relate both the operation of vessels, the operation of facilities, and a transfer operation between them.

We board tank vessels annually and inspect them to issue a tank vessel examination letter, which, basically, indicates that their pollution prevention equipment, their pollution transfer operation procedures, and oil transfer procedures, their oil transfer systems, their cargo tank boundaries and navigation equipment are in order.

We also board vessels periodically as they come in, based upon an analysis of the risk. We call that a priority boarding. Prior to a tank vessel calling on any U.S. port, they make a 24-hour advance notice of arrival. We take that notice of arrival, we query the marine safety information system—which is an automated data base of vessel spill histories and violation histories among other things—and if the vessel has not been boarded within the last 6 months for a tank vessel examination, we will reboard it. If the history of the vessel is such that the vessel appears to warrant a greater risk than most, we will board it as well.

Senator LAUTENBERG. Is it the history of the vessel or the history of the command of the vessel?

Captain NORTH. It's the history of the vessel; it's not a history of the command, per se. It is not related to the master. It is a history of the vessel itself.

So, in essence, we use the data base to target boardings of vessels that appear to us to be a high-risk type vessel.

CAPABILITY TO RESPOND TO OILSPILLS IN THE PORT OF NEW YORK-NEW JERSEY

Senator LAUTENBERG. Unless there is anything else in particular, Captain North, we would like to hear from the Philadelphia captain.

Is there anything else?

Captain NORTH. I would like to make a few comments about our capability to respond, if you would like.

Senator LAUTENBERG. Yes; please do.

Captain NORTH. We have a contingency plan that we have developed, a local contingency plan, that is an annex to the regional II contingency plan, a Federal contingency plan.

Under that contingency plan, we have divided the area of responsibility into 12 subregions that recognize the unique characteristics of current, environmental risks, operations, et cetera, to develop a response posture.

For each of those areas, we look at potential booming sites and what kind of problems we would encounter in responding to a spill.

In my own organization, we have a 24-hour watch center, on Governor's Island, that monitors the upper bay anchorages with radar, and also monitors navigation traffic by monitoring the VHF-FM radio announcements. We have no radar coverage beyond the upper bay.

Senator LAUTENBERG. You have no radar coverage beyond there?

Captain NORTH. No, sir; that is purely monitoring and managing the anchorage. It is not a traffic system.

Senator LAUTENBERG. Did you have a VTS system?

Captain NORTH. We had a VTS at one time.

Senator LAUTENBERG. When did that stop?

Captain NORTH. It went off the air on June 10, 1988.

Senator LAUTENBERG. Just last year?

Captain NORTH. Yes, sir.

Senator LAUTENBERG. Why did they do that?

Captain NORTH. Budget constraints.

Senator LAUTENBERG. Was it of value to have there, in your judgment, Captain?

Captain NORTH. It gave you a good overview of traffic. When we closed the VTS, we requested that we be allowed to retain the anchorage radar aspect of it, which was a portion of the VTS.

Looking at that, it is a very productive part of the system for a comparatively low cost.

Senator LAUTENBERG. Right.

The focus was not, however, on the environmental issue, in terms of that VTS operation. I assume it was traffic management.

Captain NORTH. Well, it impacts on the environmental issue simply because you had the ability to watch the tank vessel traffic.

Senator LAUTENBERG. Right, so that a decision to close that facility would not have been made if one firmly had in mind the environmental considerations?

Captain NORTH. I think you would have to ask Admiral Lusk about that.

Senator LAUTENBERG. All right, Admiral. You are the top command here. The buck stops with you today.

Admiral LUSK. We tried to think of everything, sir, including what we could afford, and we tried to prioritize all of our missions, all of our SAR stations, all of our cutters and drug interdictions, and everything else.

Senator LAUTENBERG. All right. Respectfully acknowledged.

What would happen if you had the funds available? Would you, retrospectively, think that having that VTS system up there would be of help in preparedness for accident prevention?

Admiral LUSK. Oh, unquestionably, sir.

Senator LAUTENBERG. Captain North.

Captain NORTH. Sir, in terms of response, as I said, we maintain a 24-hour operation center. We have a response duty officer and a team of eight personnel on standby to respond to any port safety emergency, pollution or otherwise.

We have two small boats, 41-foot utility boats, ready to go on a moment's notice, plus a small tug, and, given a report of a spill——

Senator LAUTENBERG. Is that a Coast Guard operated tug?

Captain NORTH. Yes, sir; it is a 65-foot harbor tug.

Given a report of a spill, we can dispatch a team by boat, aircraft, or vehicle to the area to investigate. If the report indicated a significant spill, a large quantity, or let's say, a minor spill to a medium spill, we would very likely contact the regional response team at that point. We would probably call a contractor, get a response contractor, and put him on standby, until we determine the extent of the situation.

Then we will either back off or go further, depending on what we found.

In calendar year 1988, we had 490-some-odd reports of spills; 326 of those actually were spills.

Senator LAUTENBERG. How many was that again? I'm sorry.

Captain NORTH. There were 493 reported, and 326——

Senator LAUTENBERG. In the past year?

Captain NORTH. Yes, sir; and 326 existed when we got on-scene. But 126 of those were of quantities so small that it was difficult to estimate how much quantity there was.

The remainder averaged about 500 gallons per spill.

Senator LAUTENBERG. And the largest of them?

Captain NORTH. The largest was 60,000 gallons, which is classed as a medium spill, between 10,000 and 100,000.

Senator LAUTENBERG. Where did that occur?

Captain NORTH. That occurred in Gravesend Bay, in this area [indicating]. It was a vessel, a tanker, that was ballasting.

Senator LAUTENBERG. An accidental discharge?

Captain NORTH. Yes.

Senator LAUTENBERG. And that is in one of the more open areas.

Captain NORTH. Yes, sir.

Senator LAUTENBERG. Well, 60,000 gallons, if it had occurred in Kill Van Kull or one of the narrower passageways, would have presented a different kind of problem.

Captain NORTH. Yes, sir.

As it turned out, this spill was moved by the wind over into the Gravesend Bay area, and pocketed in Coney Island Creek and that area. We initially did a Federal response. The owner of the vessel took over 3 days later, after he admitted responsibility.

We finished the cleanup in about 3 weeks.

We have a local cooperative that is sponsored by 12 oil companies within the port, which has somewhere in the neighborhood of 40,000 feet of booms, six self-propelled skimmers, nine floatable skimmers that you can float into a pool of oil and control and skim up oil, a small fleet of outboard powered boats to operate booms, and dispersal capability.

Senator LAUTENBERG. Is that company on a retainer? Is that a commercial company?

Captain NORTH. It is a commercial cooperative, in a sense, or a private cooperative of 12 companies that essentially respond to the spills of the members. But they put themselves forward to respond to other parties, as well as to the Coast Guard, if you request their assistance.

We also have predesignated authority to use dispersants outside of 10 meters off the coast, primarily on the south Long Island coast, down the shore of the Jersey coast, to the river where my territory ends.

Senator LAUTENBERG. Is there a maximum timeframe during which dispersants are allowed?

Captain NORTH. Well, there is a maximum timeframe under our MOU for dispersants, where we consider them to be effective.

TIMEFRAME FOR DISPERSANT USE

Senator LAUTENBERG. And what is that timeframe?

Captain NORTH. A few days, in essence. The timeframe is not specified in hours. It is specified in weathering the oil for more than a few days, and considers the use of dispersants to be less effective with more weathering.

Senator LAUTENBERG. By that time, there is a fair amount of dispersal of any spills.

Captain NORTH. But the idea of having predesignated authority is that we don't have to test before using. We are authorized now in relation to the States and the EPA to use dispersants.

Senator LAUTENBERG. Right. But I am just curious as to whether or not a shorter elapsed time requirement may be advisable. Again, if it is a few days, and for whatever reasons it takes a few days to get out there, by then the stuff is all over the place.

Captain NORTH. In addition to the cooperative, we have 10 local contractors who have approximately the same amount of equipment between them.

So we have a fair amount of equipment available in the port. The coop's inventory is designed to deal with a maximum of a 40,000-barrel spill. Then, of course, there is the Atlantic Strike Force, my neighboring captain of the port offices, where we mutually support one another in terms of responding to a major incident or a medium-sized incident.

Senator LAUTENBERG. Thank you very much, Captain.

Now we will hear from the Philadelphia captain, and please give me your name.

STATEMENT OF CAPTAIN ROE

Captain ROE. Good morning, Mr. Chairman and members.

I am Capt. Edward Roe, the Coast Guard Captain of the Port Philadelphia.

I am pleased to be invited to spend a few minutes to discuss Philadelphia with you.

ABILITY TO RESPOND TO CONCURRENT MAJOR SPILLS

Senator LAUTENBERG. Admiral, while they are putting up the chart, the commitment that we have made to Valdez in terms of

personnel, equipment, vessels, et cetera, I would have to guess leaves you fairly well exposed, heaven forbid, if we have another major accident, let's say at Puget Sound or someplace like that.

Admiral LUSK. There certainly has been quite a bit of booming and skimming equipment that has been moved from stateside up there. Some of that of course has been ours. They have a good number of our people from one of our two strike teams. I believe they have the CO of the other one.

Certainly the United States is drawn down. But we do feel capable of responding to more than one spill.

It is a troublesome thing, though.

Senator LAUTENBERG. But you have used resources way beyond the Coast Guard. I mean, the resource that is available from other commercial sources, the cooperatives, and so on.

Admiral LUSK. Yes, sir; we are already using those.

Senator LAUTENBERG. So there is a pretty good focus up there. That is a major force at work up there. Again, I would compare it to a military engagement, which it essentially is.

Admiral LUSK. Correct, sir.

Senator LAUTENBERG. Thank you.

Captain Roe.

Captain ROE. Mr. Chairman, my area of responsibility covers the southern half of New Jersey, the State of Delaware, and the eastern half of Pennsylvania. It covers some very valuable shoreline in both New Jersey and Delaware. But I have tried to focus on that area where we would experience tanker traffic, which is the approaches to the Delaware Bay—from both the north and south—the transit through the bay, the river, and north almost all the way to Trenton.

We are dealing with a transit of approximately 100 miles.

I will use the term "Ports of Philadephia" to incorporate the ports that are in all three States.

Senator LAUTENBERG. We won't be offended. [Laughter.]

Captain ROE. The major refineries I have indicated with the red dots on the chart: Texaco, Sun, British Petroleum, and so forth, on up, including two in the Schuylkill River. This constitutes the No. 1 petroleum port on the east coast, and, as you have identified, over 350 million barrels of oil moves through this area.

There are three ways that we can get oil to the Ports of Philadelphia. The first is if a tanker is a relatively small tanker, drawing 40 feet or less. The tanker can pick up its pilot at the entrance to the bay, and proceed directly to the terminal.

The second is for tankers drawing up to 55 feet, to enter the bay, again, picking up a pilot, and anchor at what we refer to as Bigstone Beach anchorage. There, using barges, the vessel is lightered, until its draft is up to 40 feet, at which point the vessel takes the pilot back on and makes the transit to its individual refiner.

A third way, which is less prevalent, and has only recently started, is offshore lightering off the coast of Delaware. There, even larger tankers will lighter their cargo to smaller ships for transit to Philadelphia, New York, Halifax, et cetera. Oftentimes the load will be split, and the lightering vessels will go in different directions.

Senator LAUTENBERG. Do those larger vessels ever enter the bay, then?

Captain ROE. Some do and some do not.

Senator LAUTENBERG. How big are they?

Captain ROE. 250,000 tons. They are big vessels.

Senator LAUTENBERG. So we are talking about almost 1,000 feet?

Captain ROE. Yes, sir.

Senator LAUTENBERG. Is that a super tanker, at 1,000 feet?

Captain ROE. Well, it's probably over a super tanker.

Senator LAUTENBERG. It's over.

Captain ROE. We have transiting the bay and river 1,047 tankers per year. Of that number, only 175 are U.S. tankers. The remaining 872 are foreign flag tankers, with foreign crews.

The vessels are getting larger, and the crews are being reduced for economic reasons. Generally, we have found that getting the foreign owners to respond to a spill is more time consuming than getting a U.S. owner to respond to a spill.

We have also designated and identified some high-risk areas. As you can imagine, the approaches are a high-risk area. The lightering operation at Bigstone Beach is a high-risk area. Marcus Hook is a high-risk area, not only because of the refinery activity, but because that is the largest and most frequently used anchorage for the ships waiting to go to berth or for bunkering operations.

Then there is the confluence of the Schuylkill River, where we experience the refiners in New Jersey and Philadelphia, in the vicinity of the Navy base.

As Captain North mentioned, and I won't go into it further, we have the same regulatory scheme. We do the same boardings, the same monitorings. We use the marine safety information system to target vessels which either have bad histories, lack a particular certificate, or need a tank vessel examination.

We do over 1,000 of those boardings each year, and that allows us to most effectively use our limited resources.

Although I have concentrated on vessels, we also have facilities in the area. The facilities have operations plans, which, as part of that plan, include the response to oilspills.

The boardings and inspections are only two of the methods that we use to enforce the regulations. We have the ability to require vessels to take specific actions when they are not in complete compliance. For example, we routinely require a tug escort, or tugs, depending on the size of the vessel, if the vessel has experienced some type of steering or propulsion malfunction.

If a vessel has experienced a malfunction of its radar, we will require the vessel to operate in daylight and in 2 miles visibility.

We routinely issue high wind warnings. Throughout this part of our program, our goal is safety, not necessarily very rigid enforcement of the regulations. We feel that by trading off, and putting additional requirements on, we can allow the commerce to continue to flow and still maintain an equivalent level of safety.

Senator LAUTENBERG. Safety for what?

Captain ROE. General safety for the port: for the vessel, in keeping it from grounding; for the environment, in keeping the grounded vessel from releasing oil; and generally marine safety responsibility, which crosses all the program boundaries.

If satisfactory resolutions cannot be made, we have ordered a vessel to depart our port and go to sea. We tell them generally to go beyond 20 miles. Based on NOAA's trajectories, if we put a vessel beyond 20 miles, any oil that they may leak should go to sea and not impact on our coastline.

Beyond the regulatory process, we are involved with the——

Senator LAUTENBERG. Captain, do you know how far out good fishing grounds are? If you were to go due east from Cape May, let's say, how far out would that be? You would get to the shelf out there.

Captain ROE. I don't know the number.

Senator LAUTENBERG. Does anybody know?

Captain ROE. Well, 50 miles is where we hear a lot of the recreational boaters going, and then breaking down trying to get to the shelf.

Senator LAUTENBERG. But the nature of the currents and so forth out there, the Gulf Stream, beyond 20 miles, if you have a spill out there, it could be fairly dangerous to the primary fishing grounds.

Captain ROE. Yes; it could still endanger the fishing grounds.

Beyond our regulatory process, we are involved on a continuous basis with the local community, primarily through the Narrows Advisory Committee—again, in looking at the safety of our port, which always impacts on the environment.

We have, for example, been successful in having the local maritime community recognize that we do have a 100-mile transit, which increases our exposure, if you will, to problems, just because of the length of time the vessel is underway.

They have adopted a set of voluntary standards for vessels operating, which require tugs for certain vessels, which require a shifting from the heavy bunker fuel to the lightering and maneuvering fuel before they get into the river environment. It requires the pilots to do a doublecheck on all the vessel's equipment and report to us if there is a problem before they start out, so that we can either turn them around or order them to anchor until they can get that problem corrected.

These voluntary guidelines have been published in the "Coast Pilot," which then puts the emphasis and the onus on vessels to comply. If they do not and they get into trouble, then they have to explain why they did not adhere to the recommendations in the "Coast Pilot."

With the transportation of petroleum products comes the risk of spills. We all too well know that in Philadelphia, in the last 3 years, we have had three major spills, all over 100,000 gallons.

All three spills were from tank vessels, and all three spills were in the Marcus Hook area, which we had identified as one of the hazardous areas.

The Grand Eagle spilled almost 500,000 gallons; the Intermar Alliance spilled over 200,000 gallons; and the Viking Osprey spilled 295,000 gallons. I believe you overflew the area during that spill.

Senator LAUTENBERG. Right.

Captain ROE. The response to those three spills has generally been regarded as prompt, professional, and effective, and the environmental damage we believe—and the environmentalists agree with us—has been minimal.

Other casualties occur without loss of oil. Most of those are groundings or collisions with fixed objects, primarily piers.

We are fortunate that the majority of our area has a soft bottom, mud or sand, and it is very kind to a vessel when it grounds. The one exception we have is in the Marcus Hook area, where we have a rock ledge, which goes from Pennsylvania right across into New Jersey. In fact, both the Grand Eagle and the Viking Osprey found some of that rock—the Grand Eagle because of a mechanical failure; the Viking Osprey because of an operator error in the speed that he was transiting the channel. He was actually in the channel.

Senator LAUTENBERG. Do you have a speed limit in that channel?

Captain ROE. No, sir; we do not.

Senator LAUTENBERG. The *Valdez* was traveling at about 12 knots, I understand, which, I guess, is—well, I don't know if that is excessive speed or not, but I know that you can't stop that in a hurry, 1,000 feet with that kind of load aboard.

Do accidents happen as a result of excessive speed?

Captain ROE. In this case, the speed was causing the vessel to sit lower in the water. It wasn't because he went too far and ran into something. He actually was going deeper in the water. Unlike a small boat, or a recreational boat, where the faster you go, it comes more out of the water; with a tanker, the faster you go, if it has a bottom near it, it will "sniff" the bottom, and it basically will go deeper in the water. This one went deeper in the water and found a rock pinnacle right in this area.

As other captains of the ports do, we have our local contingency plan, which follows the regional and the national plans. The local plan provides for identification of vulnerable areas, tabulating resources that are available, and, in our case, trying to identify the interests of the three States that are involved, and setting up our response mechanism, including the manning of our command center and who is going to do what. We have checkoff lists and phone calls.

Senator LAUTENBERG. Captain, I am going to have to stop you here. The vote is just about running out.

Again, with your indulgence, we will temporarily adjourn, and we will have probably Senator Adams return first, and if you would not mind, please answer his questions when he does.

[A brief recess was taken.]

OILSPILL CONTINGENCY PLAN FOR PUGET SOUND

Senator ADAMS [presiding]. I have discussed with the chairman, and we are trying to be certain that we use the time to the best possible advantage.

I indicated earlier, Admiral, that I had a great deal of respect for the Coast Guard, which I do. But I would like to know now what contingency plan you have for Puget Sound and where that plan exists.

Admiral LUSK. First of all, there are a number of contingency plans for Puget Sound, sir. There is the Federal plan. There is a Washington State plan. There is a cooperative plan, and then there are some of our individual Marine Safety Offices that have plans.

Senator ADAMS. Who is in charge of that? In other words, is the captain of the port of the Coast Guard the one who designates what the response will be and who will be the one in charge?

Admiral LUSK. No, sir.

Senator ADAMS. Now that is what I am concerned about.

We have the same situation that we had up there in Valdez.

Admiral LUSK. We have a worse situation than we had in Valdez.

FEDERALIZING OILSPILL CLEANUPS

Senator ADAMS. You have a worse situation. The captain of the port is not entitled to federalize that spill, is he?

Admiral LUSK. Well, if the person responsible for the spill does not do a good enough job, the statute requires the captain of the port to do the best he can, and spend Federal funds doing it, so that we can eventually recover in court.

It might be that the captain of the port would be forced to federalize it.

But, as far as the preventative role goes, there is no Federal provision, for us to say how much of a spill a vessel's owner has to be prepared to cope with when the vessel is transiting an area, such as Puget Sound.

Now, we do have, at the local facilities, a direct Coast Guard involvement in the amount of equipment that is necessary.

Senator ADAMS. There is a captain of the port, and what I am concerned about is this.

The captain of the port in Puget Sound, as I understand it, is designated the onscene coordinator. He can decide whether or not it would be federalized.

Now, I asked on April 5—I want to be sure everybody understands that I am not trying to ask you questions that have not been brought up before—on April 5, I said to Admiral Yost, Please provide my office with the details of the existing Government and private sector contingency plans for an oilspill response in the Puget Sound area. Please also provide me with an inventory of the oil response equipment that is immediately available in the area.

Do you have that with you this morning?

Admiral LUSK. I have a sheet that answers each one of the questions that was in your letter.

Senator ADAMS. May I have that sheet, please?

What I am concerned about is if it has taken a week to answer this, I do not believe that we have an improvement over the Valdez situation in the Puget Sound area.

In other words, the problem there was that nobody was in charge, or there was a question between the private sector and the Coast Guard sector, and I want to be sure that the Coast Guard is in charge, can federalize the cleanup, and can tell people what to do so far as prevention is concerned. And I believe you just told me that they could not.

Admiral LUSK. Well, there are two issues here, sir, and I was trying to focus on both.

One is the amount of equipment and resources that have to be available in order to cope with the spill. The second concerns contingency plans.

Now, up in Valdez, you might remember I said that there was no requirement by the Federal Government for any sort of contingency plan for spill response in the Prince William Sound area, but that there was a requirement by the State of Alaska. Part of Alaska's permitting process for Alyeska was that there be a response plan for the Prince William Sound area.

I do not believe that the State of Washington has a similar requirement for Puget Sound.

Senator ADAMS. I don't, either.

I think they have a plan. The Department of Ecology has put out a generalized statement of policy.

What I want to know from you, Admiral, is I want to know if there is a specific Coast Guard plan that says we have a spill off Anacortes, it is of this size, and who is in charge, and who is going to go up there and clean it up so that we don't have a 3-day delay in getting started.

Admiral LUSK. I will talk now about a post-spill response.

Senator ADAMS. A post-spill response. We'll get to the other in a minute, then.

Admiral LUSK. Post-spill, the statute makes the owner responsible for cleaning up that spill. The owner is in charge of the cleanup. The statute reads that if the Coast Guard, the onscene coordinator, determines that the response is not adequate then the onscene coordinator can federalize the response, and is responsible for it.

But I would certainly say, sir, that we do not guarantee that we will have the equipment or the manpower there to do that. We would typically, in a case like that, use whatever we have. But we typically use civilian contractors, private companies, and anything else we can get to respond as best we can to a spill that we have federalized.

Senator ADAMS. Admiral, I understand that the group that is in the Puget Sound area, called Clean Sound, has five skimmers, 10 fast response vessels, one 4,000-foot boom and one 26,000-foot boom, and that this equipment is in Bellingham, Tacoma, Seattle, Anacortes, and Port Angeles.

Now, do you believe that you are capable of responding to a spill of a size of over 10,000 to 12,000 gallons, let alone the size of one-third or one-quarter, even, or a one-tenth of what you had in Valdez with that kind of equipment?

Admiral LUSK. It is unquestioned that that type of equipment can very easily be overwhelmed, sir.

Senator ADAMS. It's overwhelmed.

So, what I want to know is this. It just seems to me that you could not respond to a spill in Puget Sound of any significant size—in other words, a vessel rupture—with the equipment that you presently have.

Admiral LUSK. Well, it would depend on a lot of things, sir. It would depend a lot on environmental factors—there are so many variables. But certainly I can see that there might be many cases where the equipment that is available, either in the Coast Guard or in the private sector, would be overwhelmed.

If that were the case, then, somewhat similar to what Exxon is doing, the company would have a responsibility for bringing in

whatever equipment was necessary, even though it might be tardy and even though there might be environmental damage during the delay. And if they did not do that, we would have a similar responsibility.

VTS PUGET SOUND

Senator ADAMS. Admiral, I would like to have from you and Admiral Yost what it would cost to put that type of equipment into Puget Sound, because it is clear to me that we have had a reduction of equipment from 10 years ago, and that we are not prepared.

Now, let me shift to the second question of prevention. You have a vessel traffic control system. I believe one of you said to me earlier that if you saw a vessel off course, you could not order that vessel back on course coming into the sound.

Is that correct?

Admiral LUSK. Has Admiral Nelson left?

[Pause.]

Admiral LUSK. I see that he has.

That statement was made. I believe the context that he used it in was to say that it was an advisory system. Certainly, sir, the captain of the port does have the authority to, in an emergency, take over the control of a vessel, and certainly the captain of the port himself, or one of his representatives, could give a mandatory order.

Senator ADAMS. Well, I have been in it and I am sure you have, too. You have a vessel traffic control center in Seattle, in the district.

Admiral LUSK. Yes, sir.

Senator ADAMS. And you have there a radar printout, in effect, of Puget Sound.

When I was U.S. Attorney, I had a vessel hit a needle rock and sink about one-third of the way down the sound.

Now, if you see a vessel that far off—in other words, he was cutting the rocks—are you telling me that you cannot call and order that vessel back on course? I think that is what somebody told me.

Admiral LUSK. No.

But what I just said a minute ago—and now that we have Admiral Nelson back, he can correct me if I am wrong—if it is very obvious that there is something that is being done that is wrong, the captain of the port does have the authority to intercede and take positive action.

Is that correct, Bob?

Admiral NELSON. That's correct.

Senator ADAMS. All right.

Now, that did not happen in Valdez, even though, as I understand it, you had it on scope, and the mate had said I'm turning. What I am concerned about is your response time and what will your person do if, seeing a vessel coming down—because the Puget Sound waters are foggy. There is a lot of traffic. There are a lot of islands. I want to know what the Coast Guard is going to do—this is what I asked in my letter—specifically saying you are off course, change course.

What is your response in that case?

Admiral NELSON. I think we have two situations here.

Up there in Alaska, we have the Narrows. We do not have a chart up here, so I cannot show it to you. But the Narrows is where the vessel traffic system monitors, by radar, the movement of the vessel.

Senator ADAMS. And you do not monitor farther out?

Admiral NELSON. No, sir; we do not.

Senator ADAMS. All right.

Now let's go to Puget Sound.

You monitor in Puget Sound the straits; you come down past Anacortes. Where does your radar finally stop? Do you cover the whole sound? You were supposed to.

Admiral NELSON. They cover the whole sound down to about, I think about 10 miles south of Seattle. I don't have a chart before me, so I can't tell you exactly.

Senator ADAMS. So, in that area, you would be able to say to a vessel off course—I want to be sure you can because if you can't, we want to put in the regulations or put in the law that says that you can, that that vessel is to go back on course.

Admiral NELSON. In the area in which we monitor by radar, we will observe if he is off the given course, the given trackline, and we will tell him.

Senator ADAMS. All right.

Now, if you tell him and he keeps going, can you order him?

Admiral NELSON. Yes; we can order him to get back on track. That is the purpose of the advisory. But it is still an advisory.

How he gets back on track, what his rudder signal is to get back on course, that is his responsibility. He is responsible for the safe navigation of his vessel.

Senator ADAMS. Absolutely.

But what we are trying to establish here is we have a dangerous set of commodities. Oil, in large quantities—thank God in Puget Sound we don't have the supertankers. We are under 125,000 deadweight tons. But we have this vessel out there, and I just want to know what your response is in terms of being able to say to that vessel if it is off course that it has to get back on course, and if it doesn't, what is your response time, helicopter or otherwise, to get it back on course?

Admiral NELSON. We could continue to provide him advisories, including telling him to stop.

Senator ADAMS. And if he does not?

Admiral LUSK. If he does not, we are probably dealing more with an after-action report, where we assess penalties, where we revoke licenses, and the like, and maybe pick up a spill.

Senator ADAMS. In other words, you don't send your copters out of Eddis Hook, and you don't send your cutters up there to try to deal with that vessel?

Admiral LUSK. It could be done, but I'm not sure it could be done in time to avoid an accident.

Admiral NELSON. We have to assume in this whole system, sir, that we are dealing with rational pilots and rational masters aboard that ship, who are seeking all the advice that they can get. We provide them as much advice as we can provide.

Senator ADAMS. Oh, absolutely, Admiral. I understand that most vessels coming in and out of Valdez or coming in and out of Puget Sound have rational people and they are doing rational things.

What our problem is is this. We have already had testimony that we do not have adequate equipment in there to respond to major sized spills, which I think is horrifying, and we have to try to correct that.

The second part is that, when we have a deviation of significant amount, and in this case it was significant—he went from one lane to another, and then just kept going—I want to know that there is more than somebody just saying please stop. I want to know what kind of response you will make—because you have equipment, and if you don't even get to the vessel in time to stop it from going on the rocks, at least you are there when the accident occurs, and there is a response immediately, rather than a day or two later.

Admiral LUSK. I cannot imagine us being able to muster up enough response to be able to stop a tanker that wanted to go in one direction, even though we had ordered it to go in another.

There is just an incredible amount of power that would be required.

Senator ADAMS. Agreed. But if you have dispatched cutters and you have said don't do this, you are on the scene almost immediately when it happens; and if you federalize the response, then that response starts immediately, and not 3 days later.

Admiral LUSK. I think that we simply do not have the resources to respond so quickly, by either helicopter or by boat, unless it just happened to be that we had a vessel on patrol in the area.

Take, for instance, in the Valdez area, sir. That happened some 25 or 30 miles from our resource, and our resource was very limited.

Senator ADAMS. Admiral, that's what we want to know in this committee: What are the resources that you have to have? You have in Valdez the most heavily traveled, most dangerous crude oil port in the United States. I think we all agree on that. This is a narrow—you can call it wide—but it is a fairly narrow bay, with very bad weather, and all of this oil is pouring out.

Now, the reason I am questioning you on Puget Sound, again, is we have a very particular situation there. We have all the water flowing in from the straits. We have a number of islands where we have had accidents in the past. We have a very fragile coastline, with enormous shellfish resources, and salmon, and other types of fish resources, and we are trying to protect this sound.

What I am getting from you—and I have not had a full response to my letter yet—I want to know what the emergency procedures are; I want to know how quickly you can be there; and I want to know how much equipment is there.

The information that I have is that the equipment is inadequate and your response time is inadequate, and if you need a regulation that says you federalize immediately rather than days later, as we did in Valdez, I want to know that so that we can press for that.

Admiral LUSK. I think we would probably need a statute, because as I understand the statute now, it requires that the onus is upon the owner, the one responsible for the spill, to make the cleanup, and that we assess the adequacy of his response.

Senator ADAMS. Well, then, what you need is an oil fund of size so that you have the money available, and you need to have the authority, rather than it being the private sector, to clean it up. We'll make them responsible for it. But I just want to be sure that you have immediate response time, and money for the response time, and equipment for the response time.

Admiral LUSK. Sir, we usually have a rather conservative budget. I think we are talking about a rather large amount of resources.

Senator ADAMS. Well, sure, we are talking about taxing so many cents per barrel and building up a fund of $300 or $400 million, aren't we?

Admiral LUSK. Probably.

EXPANDING VTS COVERAGE OF PUGET SOUND

Senator ADAMS. Sure.

Well, you are going to see a lot of action on that, Admiral, and I appreciate your time.

Thank you very much.

I see that the chairman is back and while he on the telephone, I have one other set of questions that I want to ask you about.

The south sound—we are now delivering oil down into the Olympia area and so on. I know all of you are familiar with the sound because I know the Coast Guard shifts its people around the country.

We do not have radar coverage down there now at the present time, is that correct?

Admiral NELSON. We do not have radar coverage down to Tacoma or down to Olympia.

Senator ADAMS. All right.

What is the cost of that? Do you have an estimate?

Admiral NELSON. I do not have an estimate at the moment. It would depend on how many additional radar sites we would have to install and the difficulty of acquiring and installing equipment at those sites.

Senator ADAMS. Why didn't we put them down there, when we were putting in the rest?

I remember the terrible fight that we had getting them in in the north end. Was there some reason? Was it just funds?

Admiral NELSON. The bottom line is always funds. I think that was the lower priority at the time.

Senator ADAMS. But you are delivering.

What sized ships are you using down there in the Tacoma area? I know Tacoma is an offload port, and there is a certain amount of offloading in Olympia now.

Admiral NELSON. It is my understanding that vessel traffic has picked up in the Tacoma area since we installed the system.

Senator ADAMS. Yes; we have a whole new port of Tacoma that is very active, isn't that correct?

Admiral NELSON. That's correct.

Senator ADAMS. I would like from you what the costs of that are so that we will have that available.

Admiral NELSON. Yes, sir; we have your letter and we are working on those. We would like to try to give you accurate costs, sir.

Admiral LUSK. We'll give you a full response to your letter. I just don't have it with me.

[The information follows:]

Our preliminary estimate is $4.6 million to expand radar coverage to Tacoma and $14.6 million to expand to Olympia. These costs include design, equipment procurement, and installation. Annual estimated maintenance and support cost is $350,000 for expansion to Tacoma and $1.4 million for expansion to Olympia. If coverage is extended to Tacoma and Olympia, five additional watchstanders in the Vessel Traffic Center will be required at an additional annual cost of $130,000. Depending on the resources dedicated to other VTS projects, as many as four additional support billets may be necessary at an additional annual cost of $200,000.

TANKER CONSTRUCTION STANDARDS

Admiral LUSK. One thing I might mention, Senator.

Senator ADAMS. Part of that is the second part of where I want to see legislation if it is necessary, and that is in giving you additional tanker safety control powers.

Now, we did this and got into an international fight in 1978. But I want to see double bottoms on those supertankers. This, as I understand it, was defeated by the international community, is that correct?

Admiral LUSK. Well, let's say they came up with a compromise, and there are things that can be said in favor of the compromise as well. They came up with a segregated ballast system. In the case that we just had up in Alaska, for instance, that was a segregated ballast tanker. Some of the tanks that were punctured were tanks that just had ballast water in them.

If that tanker had the double bottom, we might have found, because of the blow that it took, that it might have driven all the bulkheads in the double bottom right up through the tanks. So we might have lost the whole tanker.

Senator ADAMS. We understand, though, that it went right down through all those segregated tanks, and the whole bottom came out of it. So the segregated tanks didn't work either, did they?

Admiral LUSK. Well, at least where there was a segregated tank punctured, it just poured water out. It didn't pour oil out.

There is one thing that I might like to mention, sir, and it is not totally on point. We have had budgetary problems that have caused us, within the last 2 years, to shut down a couple of our VTS systems. For instance, the one in New York that we shut down, which we testified on earlier, we shut that down in order to save $1.5 million. The one down in New Orleans, which we shut down a year and a half ago, we shut the whole system down simply because we did not have the money to pay the wages of the people. We didn't have the money to buy the new equipment that we need and to make the system a workable one.

So, I would say that what you have up there in Puget Sound is, while you might think it is inadequate, it is so much better than we have been able to provide for so many other ports.

Senator ADAMS. Admiral, a number of us have worked on seeing that it was more so, not because we didn't feel that the other ports should have it; but if it takes muscle to get it, we're not going to let that sound end up as an oil lake.

I can just assure you that that is not going to happen. The day that you hear some order to close the Puget Sound vessel traffic control down, I want somebody on the phone to me.

Thank you all very much. You have been very kind.

Mr. Chairman, thank you very much. I want to thank you for your kindness to me.

Senator LAUTENBERG [presiding]. We are happy to do it, Senator Adams, because of the kind of credentials that you have in terms of this organization and your commitment to the environment. We wanted to give you a chance to do whatever you can to make sure that Puget Sound and the areas specific to your State are protected. They are very valuable resources. The harbor areas are legendary there, and I hope that you will invite me for a visit, so that we can cruise through Puget Sound.

Senator ADAMS. You are hereby invited.

Senator LAUTENBERG. OK.

Senator ADAMS. Thank you all very much, gentlemen.

Senator LAUTENBERG. As you see, Admiral Lusk, there is so much interest in this.

I also have a request from a colleague in a nearby State, Senator Lieberman, of Connecticut, who is on the Environment Committee with me. He asked me if it was all right if he submitted some questions for the record, and I said I am sure the Coast Guard would be pleased to answer them because it relates, particularly, Captain North, to the sound, as we talk about it. It passes right by there, and they have a major stake in the quality of the water and the natural resources.

I'm sorry this is taking so long. We will have a whole bunch of additional questions.

While we have the port captains here, I would like just to ask a couple of questions of them.

First, Captain North, Captain Roe, in each of your cases, you share information and you said you share facilities when a crisis occurs. I hope that we can avoid having to share that by good, preventive measures, and that is the best way to deal with this.

Captain Roe, you said that your largest spill, one of the three large spills that you had in these last couple of years was of what size?

Captain ROE. It was 420,000 gallons; almost half a million gallons.

RESPONDING TO MAJOR OILSPILLS

Senator LAUTENBERG. Yes.

In each of your own judgments—now I am not asking you something to put you on the spot in terms of doing the total evaluation—do you think that you have the necessary plans, the equipment, the facilities, to handle the kind of accident that would cause us all to shudder, a couple of hundred thousand gallons? You are starting there to talk about some pretty heavy stuff.

What is a major spill? Is it 100,000 gallons?

Captain ROE. Yes; 100,000 gallons.

Senator LAUTENBERG. Do you think that you have the facilities, equipment, and plans to deal with that?

Captain ROE. If we are talking about a spill the size of the *Exxon Valdez*, I do not believe we have within my area the resources to effectively deal with that.

The plan that we have and the equipment that is available, and the contingency plan that the coop has developed is probably for dealing with a spill in the neighborhood of 30,000 barrels. Beyond that, they would have to go outside for help.

Senator LAUTENBERG. That's roughly 1 million gallons.

Captain ROE. Yes; just over 1 million gallons.

Senator LAUTENBERG. Captain North, how about your evaluation of your area?

Captain NORTH. We are prepared to deal with one of similar size, as Captain Roe described. I think, even in that case, even though the local coop feels it has the equipment to respond to such a spill, we would certainly be going outside the port for some assistance, after we did some initial response. We would call in strike team people. We would certainly convene the RRT and get other assistance, as necessary, to help us.

OILSPILL RESPONSE DRILLS

Senator LAUTENBERG. How often do you have drills? Do you have so many accidents that you have live drills all the time?

Captain NORTH. We have an annual drill where strike team members come up and conduct training for my people, for the local facility operators, on a voluntary basis, for the coop members, and for the other Federal and local State agencies in the area.

Senator LAUTENBERG. But you are called out a lot on spills generally?

Captain NORTH. Yes, sir; we use the equipment periodically during the year, certainly, and get some active experience, as well as the training.

Senator LAUTENBERG. Captain Roe, do you have a VTS system?

Captain ROE. No, sir; I do not.

If I could respond to the training and the exercise issue, we, in conjunction with the local cooperative, hold four exercises a year. I have sat in on the majority of those.

We also have the strike team providing in-house training to the Coast Guard, and just last July, we had an OSC/RRT simulation in Philadelphia. The simulation was a vessel collision with fire and a major oilspill. That was attended by over 400 people from throughout the response community and the State agencies, and it was highly successful.

Senator LAUTENBERG. It sounds like the right thing to do.

I am forced, then, to ask this. Captain North, wouldn't more frequent drills, more frequent dress rehearsals, help keep that team sharper?

Captain NORTH. Yes, sir; it would sharpen it up.

We have additional training besides the strike team visits that we do.

We also engage in the OSC/RRT simulation training. We were scheduled for a visit from them last year. However, we were canceled, and they were sent to another port that had less activity in

terms of local experience, which needed the training perhaps more than we did.

REINSTATING VTS NEW YORK

Senator LAUTENBERG. What would it cost to reinstate the VTS operation in your port?

Captain NORTH. That is a difficult question to answer.

Admiral Nelson may have a better feel for dollars.

Admiral LUSK. I think the figure that I saw was that we saved something like $1.5 million annually, sir. But it would cost more than that to reinstate it.

Senator LAUTENBERG. I would appreciate it if you would get back to me with an evaluation of that.

Admiral LUSK. Yes, sir.

[The information follows:]

Our preliminary estimate is that $6.2 million in hardware and installation costs will be needed to reopen VTS New York. Once built, the VTS would require staffing by 27 persons at $1 million annually and $700,000 in annual operating costs. Depending on the resources dedicated to other VTS projects, as many as four additional support billets may be necessary at an annual cost of $200,000. However, we are evaluating recent developments in electronic technology that may offer a much less expensive alternative than cameras and radars for managing vessel traffic. In addition, we are updating our study which identifies port needs for VTS. We expect the results by next summer.

ALERTING SYSTEMS FOR VESSELS OFF COURSE

Senator LAUTENBERG. Also, Admiral Lusk, evaluate the value of having that kind of system. And, once again, the problems are somewhat different. The channel up at Valdez was so clearly marked that anything outside of there, I think, gives cause for alarm, a vessel of any size.

But, whether or not we could not design programs that give automatic alerts? Now, the time between the moment that you notice a vessel is going to stray and the time that it strikes bottom or collides with something is not very long. And I do not know what you would do about it, except to make sure that, at least through the radio, there is an alarm message that goes out; that you are ready, whatever.

Do you have helicopter availability in each of your ports for emergencies?

Captain NORTH. Yes, sir.

Captain ROE. Yes, sir.

Senator LAUTENBERG. So at least the process can be begun at an earlier stage. So I would appreciate your evaluation. You do not have VTS in the Philadelphia port?

Captain ROE. No, sir; I do not.

Senator LAUTENBERG. Have you ever?

Captain ROE. There was a study done in the early 1970's trying to assess the needs for different ports, and Philadelphia was well below the listing of ports that were felt to be in immediate need.

COAST GUARD FUNDING

Senator LAUTENBERG. I do not want to recommend response systems to you, Admiral Lusk. I am sure you will be doing an apprais-

al within the Coast Guard itself about how you can better manage or better protect yourselves against these things.

So we will be looking for that from you.

We are going to be fighting very hard to get funding for the Coast Guard's mission. It continues to expand. We have not talked at all today yet about drug interdiction.

Admiral LUSK. While we are on that point, the VTS systems, with a couple of exceptions, are ones that are not mandated by statute, whereas so many of the things we do are. For instance, in our budget each year we get a floor, we have to spend at least that much money on drugs, and a few other things like that.

Whereas, when you get into such things as VTS, these are sort of in the discretionary area. The things that we want. God knows there are a lot of things that we want, and they are important, but we are fighting for our survival and we basically take the things that Congress has mandated, and those are the things that get the funds.

Senator LAUTENBERG. That is absolutely right. And I am inclined to agree that we ought not to do that. But what happens is, it is easier to fix on some specific thing and say, OK, we want that funded. I do want to see the Cape May Coast Guard training base expanded or protected. You know, we keep washing out to sea there.

When I look at the target range out there in, I do not know how many feet of water, it is awfully hard to gauge how accurate you are.

Admiral LUSK. Where we used to have a range, when I was a cadet, sir, there is probably water over my head now.

Senator LAUTENBERG. There is a lot of water, and also we had a little bit of an airstrip, I think, there at one time. But that has long since gone.

In any event, I know that you have those requests. And this is a good time, in my estimation, to focus on the environmental job that you folks do; a very, very important one that only gets attention when the crisis is there.

Now, I am always looking at it because I have you watching the barges electronically. And you and I were out on the garbage barge a year or 2 years ago, to make sure that that was not dumped off in New Jersey or some other place.

If you had your choice of whether or not you needed—of what facilities you would recommend to further protect against the accidental spill, is there anything that quickly comes to mind?

I know it is easy to say—I am giving you a softball here, and I do not mean to. You know, I am not interested in just more personnel. But, schematically, what might you think about that would help us be better prepared than we are?

Those couple of spills in the Philadelphia port area, I thought were handled exceptionally well, even the one that I flew over and the others. They were handled with reasonable dispatch. I do not know what the long-range consequences were of those spills, but I thought they were handled expeditiously and efficiently.

Admiral LUSK. Yes, sir; certainly one thing that leaps into my mind, and maybe you were focusing on the two captains, rather

than me, but one thing that leaps into my mind is what looks like a void, if you will.

While we do have a responsibility real close to the terminal facilities, when you get out and you start talking about what type of pollution response equipment and resources are necessary for tankers moving through the area, you see a dearth of that. You talk about voluntary cleanups and the like. Perhaps more mandatory focus in that area, sir, would be one thing that leaps to my mind.

OILSPILL LIABILITY AND COMPENSATION LEGISLATION

Senator LAUTENBERG. I appreciate that thought.

And the financial liability changes radically as we look at the damage that can be wrought by oilspills. I mean, it is really hazardous cargo and we have not talked about hazardous cargo per se. I mean, that which is identified as hazardous cargo and what might happen there.

Admiral LUSK. Another thing, sir, if I could mention it again. Doing something relative, and this is a takeoff on your point, doing something relative to the CLC and fund and the protocols, or some sort of a comprehensive bill, such as we have discussed earlier, would be great.

Now I admit that is sort of an after-the-fact type of thing. And you are probably focusing more on preventative measures. But after the fact it would be helpful too.

OILSPILL RESPONSE DRILLS

Senator LAUTENBERG. Well, you are going to be testifying, or you have already, before the Commerce Committee, and its jurisdiction there.

And I hope that you will propose or have proposed to them as well legislative developments that might help in advance of catastrophe; to make vessel operators more responsible; the training.

I am sure you see the value of our legislation, because we consulted about this, by having the national driver registration available. We ought to be looking at the temperament and habits of people who we entrust with this kind of invasion of our waters.

So I think with that we will adjourn this part of the hearing. But I just want to ask you this, are any of your drills held during nighttime or bad weather conditions? Do you try to target that?

Captain ROE. We have held some drills under some marginal weather conditions, but none were scheduled for nighttime.

Captain NORTH. No, sir.

Senator LAUTENBERG. I assume that the risks are a little greater then, than if there is clear weather? Even amateur sailors like me do not mind being out there because everything is very, very visible. And sometimes you are more alert at night than you are during the day.

Do not misinterpret what I am about to say, because in no way am I proposing more search and rescue money for me out there in the sea. I mean, if I call up, I call just as a standard boatowner, and I do not say who I am or what.

Admiral LUSK. We will find you, sir.

Senator LAUTENBERG. They found me off Watch Hill a few years ago, which was very helpful, if you know where that is in Rhode Island.

Thank you very much.

We will now have the GAO come up to talk about a subject that you will find close to your heart, the icebreaker.

If you would be available in case we want to answer a question, or your designee.

Admiral LUSK. I wonder if I could designate Admiral Nelson, because he is in charge of the program.

Senator LAUTENBERG. Now, that is the other Admiral Nelson, because I have already met one.

Admiral LUSK. You have met both Clydes and now you have met both Nelsons.

Senator LAUTENBERG. Yes; they are kind of stand-ins for one another if the going gets tough. Is that it? [Laughter.]

We are happy to have you stay, and we will ask, please, for the GAO witnesses to come to the table.

Admiral LUSK. Thank you, sir.

SUBMITTED QUESTIONS

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

QUESTIONS SUBMITTED BY SENATOR LAUTENBERG

SENATOR LAUTENBERG: The oil spill caused by the grounding of Exxon Valdez required the Coast Guard to provide substantial resources to Alaska that were not anticipated when the 1989 appropriations bill was enacted. What program activities are the Coast Guard reducing in order to provide these additional resources to Alaska? Does the Coast Guard have a plan to achieve those workload outputs at a later time in FY89 or FY90? What adjustments (in terms of distribution of funding by mission) does the Coast Guard anticipate making in order to be able to continue to respond to the Exxon Valdez incident?

ANSWER: The Coast Guard has consistently drawn attention to the importance of maintaining our multi-mission capabilities. The response to the Valdez incident has been a dramatic example of this capability. Responding to the spill necessitated a shift of available resources and reprioritization of mission areas: the shift was rapid, and the reprioritization is an ongoing process.

Within the Alaska area of operations, the full range of missions has been balanced alongside the resources available. Additional resources, both personnel and equipment, have been provided from other parts of the Coast Guard. As a result, other ships will endure greater periods away from home port; aircraft/aircrews remaining at home station will have extended crew mission days; marine inspectors will assume a greater workload while coworkers temporarily support Valdez; administrative support personnel will process greater volume during their workday, and personnel attached to some operating units may well accomplish missions normally pursued by another command.

In the Aids to Navigation program, navigation discrepancy reports continue to receive immediate attention. While the response may not be initiated by the local buoytender, which is temporarily operating in Valdez, it will be pursued by the District staff, a helicopter overflight, or by a cutter simultaneously involved in a fisheries patrol. Immediate requirements have been met while routine buoy maintenance has been deferred. Likewise, while Marine Safety and Environmental Protection requirements in Prince William Sound have been substantial, inspection, investigation, and examination responsibilities are being met elsewhere.

In the Pacific Area, some ships initially scheduled for Fisheries Enforcement patrols have been diverted to support the Valdez effort. In some cases, patrol days are tied to specific fisheries activities. When missed, they cannot be made up. At this point, the number of ship resource hours shifted among competing mission areas is undetermined.

The Coast Guard's multi-mission character has provided the flexibility to respond effectively to this crisis while simultaneously meeting other critical mission requirements. This increased level of operations is not without cost, however, as deferral of maintenance results in backlogs that must be resolved. Likewise, both cutters and aircraft are programmed for specific levels of operation, beyond which additional operating and maintenance funds may be required. With the full extent of operations required by the Valdez incident still unfolding, it is too early to tell the level of additional funding that may be needed, or how the Coast Guard would accommodate it.

SENATOR LAUTENBERG: Would it be of help to the Coast Guard if the Committee were to consider providing that some of the FY 1989 appropriations for the Operating Expenses account be made available for a two-year period (FY 1989 and FY 1990) in order to help the Coast Guard make funding accommodations necessitated by the EXXON VALDEZ spill?

ANSWER: Yes, it would be helpful because of the uncertain delays in reimbursements from Exxon. Also, it would reduce the pressure for injudicious spending at the end of the year. Such authority would actually be helpful in every year and would assist in using appropriated funds more efficiently.

SENATOR LAUTENBERG: The FY 1990 Budget Amendments proposed by the President includes $10 million for additional resources for the Coast Guard for drug interdiction efforts. Please provide a detailed summary of funds included in the FY 1989 bill as enacted, and the 1990 budget, and show what additional efforts will be made if the Committee agrees to provide the additional $10 million requested by the President.

ANSWER: In FY 1989's Operating Expenses (OE) appropriation, we anticipate that $492.3 million derived from the DOT Appropriations Act will be spent on drug interdiction. This will provide an estimated 205,000 cutter operating hours and 33,555 aircraft flight hours. Those major "Enforcement of Laws and Treaties" items provided for in the FY 1989 budget OE increment (Budget Category 3 "Operate New Facilities") include:

HH-65A Aircraft Maintenance and Operations Follow-on	$2.3 million
110 ft WPB Follow-on	$7.7 million
Air Interdiction Support Follow-on	$4.1 million
Expanded OPBAT Operations	$15.0 million
Bahamas Drug Interdiction Docking Facility Follow-on	$0.7 million
Land-Based Aerostat Follow-on	$15.0 million

The Coast Guard FY 1990 request, including the President's amendment, will fund an estimated 210,000 cutter operating hours and 35,600 aircraft flight hours for drug law enforcement. The Coast Guard will spend approximately $566.9 million on drug interdiction. Those major "Enforcement of Laws and Treaties" items provided for in the FY 1990 budget request OE increment (Budget Category 3 "Operate New Facilities") include:

Operate two E-2C aircraft	$7.87 million
Operate Land-Based Aerostats	$10.50 million
Land-Based Aerostats Comms & Mgt	$1.17 million
110 ft WPB Follow-on	$2.19 million
Aircraft Maintenance Follow-on	$10.82 million

The President's $10 million amendment to the Coast Guard FY 1990 request will establish a forward law enforcement operating and support base to allow 4,000 increased cutter hours and 1,600 increased aircraft hours to be committed to interdiction operations along the maritime transit routes through the Caribbean. The base will additionally provide communications and intelligence support.

Of the $10 million requested, $5.2 million will fund the increased aircraft operations; $1.4 million will fund the increased

cutter operations; $0.8 million will provide for communications and intelligence support and $2.6 million is required to operate the facility. Eighty-one new positions are included in the request.

SENATOR LAUTENBERG: Please provide for the record a list of the authorizations in the Drug Bill showing the range of responsibilities called for by the Coast Guard, the funding amounts authorized for such activities, and appropriations provided to date for such activities. Also, please provide a comparison of the authorizations provided in the drug bill for the Coast Guard with the authorizations provided in the drug bill for the Customs Service and for other Federal agencies. The Committee needs to have a full explanation of the role provided for the Coast Guard in the drug bill with the role provided for other Federal agencies.

ANSWER: The final version of the Drug Bill contained a number of provisions affecting Coast Guard law enforcement responsibilities:

Section 6079(d). Summons in Lieu of Seizure for "Commercial Fishing Industry Vessels: This provision requires the issuance of regulations after a public comment period of at least 30 days, providing for issuance of a summons to appear in lieu of seizure of a "commercial fishing industry vessel" for violations involving the possession of personal use quantities of a controlled substance. These regulations apply when the violation is committed on a commercial fishing industry vessel that is proceeding to or from a fishing area or intermediate port of call, or is actively engaged in fishing operations.

Section 7364. Customs Forfeiture Fund Amendments. The fund remains a Customs fund, but both the Coast Guard and the Customs Service get an automatic appropriation for all expenses of seizure. Additionally, the Coast Guard will have access to money in the fund for other purposes, such as equipment for Coast Guard vessels, vehicles or aircraft for law enforcement purposes, or for sharing with state or local law enforcement agencies. However, these payments for additional purposes must be covered by CG seizures, and come out of appropriations in excess of $10,000,000 for each fiscal year (the first $10,000,000 appropriated is provided to Customs).

Section 7401. Naval Commanding Officer Protection and Authority. Commanding Officers of naval vessels with Coast Guard Law Enforcement Detachments (LEDETs) embarked, and those acting under their authority (including the members of the Coast Guard LEDET) are given the authority and protection of 14 U.S.C. 637, which authorizes firing into a vessel to force it to bring-to and protects personnel from resulting criminal and civil liability.

Section 7402. Maritime Drug Law Enforcement Amendments. This extends the Maritime Drug Enforcement Act to American citizens on board vessels of any nation, and requires the operators of vessels which would otherwise be considered U.S. vessels, but for a valid foreign registry, to raise that foreign registry issue at the time of the boarding.

Section 7403. Coast Guard Law Enforcement Duties. This amendment adds specific language to Section 2 of Title 14 authorizing the Coast Guard to "engage in maritime air surveillance and interdiction."

Section 7404. Great Lakes Interdiction. This provides for an interagency agreement (Treasury and Transportation), and for negotiations between the U.S. and Canada, to increase the effectiveness and cooperation in drug interdiction efforts on the Great Lakes.

The following table sets forth the final results of funds authorizations and appropriations, for the Coast Guard in the drug bill:

	AUTHORIZATIONS	APPROPRIATIONS
OE FY-89	$ 80 million	$ 16 million
OE FY-90-92	20 million	
AC&I	200 million	52 million (helicopters)
		31 million (FRAM)
		17 million (C-130)
		$ 100 million Total AC&I

The following is a table providing authorizations and appropriations for all Federal Agencies included in the Anti-Drug Abuse Act of 1988 and the associated FY 1989 appropriation.

($ Millions)

AGENCY	Author.	Approp.
STATE		
State Department Rewards	5.0	0.0
State Department Visas	9.0	5.0
Multilateral Assistance	3.0	0.0
Military Assistance	15.0	0.0
Subtotal—State/Foreign Operations	32.0	5.0
JUSTICE		
FBI	30.0	15.0
Organized Crime Drug Enforcement	6.0	0.0
DEA	76.0	30.0
Immigration & Naturalization	52.0	26.0
Judiciary S&E	53.0	35.0
Defender Services	29.0	15.0
Fees of Jurors	2.0	1.0
Court Security	5.0	0.0
General Legal Activities	1.0	2.0
U.S. Attorneys	69.0	69.0
U.S. Marshals	22.0	16.0
Support of U.S. Prisoners	22.0	16.0
State Justice Institute	15.0	0.0
Prisons—Buildings & Facilities	200.0	96.0
Prisons—S&E	13.0	0.0
Office of Justice Programs	260.0	90.0
National Institute of Corrections	14.0	0.0
Presidential Commissions	3.0	0.0
Subtotal—Justice	872.0	411.0
HUD/INDEPENDENT AGENCIES		
Public Housing Drug Grants	8.0	0.0
VA Medical Care	16.0	0.0
Subtotal—HUD & Ind. Agencies	24.0	0.0

AGENCY	Author.	Approp.
INTERIOR		
Forest Service	10.0	0.0
Bureau of Land Management	2.0	0.0
National Park Service	3.0	0.0
Indian Health Service--Services	24.0	0.0
Indian Health Service--Facilities	6.0	0.0
Subtotal--Interior	45.0	0.0
HHS/EDUCATION		
Drug Free Schools	119.0	108.0
Education Aids	0.0	1.0
Employee Assistance Programs	4.0	2.0
Human Development Services	30.0	30.0
ADAMHA Health Services	1,135.0	240.0
ADAMHA Research	20.0	40.0
ADAHHA Training	1.0	3.0
National Youth Sports Program	3.0	3.0
Subtotal--HHS/Education	1,312.0	427.0
ACTION	4.0	2.0
AGRICULTURE		
Food and Drug Administration	5.0	5.0
Drug Abuse Education for WIC	10.0	0.0
Subtotal--Agriculture/Rural Development	15.0	5.0
TRANSPORTATION		
FHWA Drugs/Drunk Driving Grants	25.0	0.0
NHTSA	5.0	0.0
Coast Guard Operating Expenses	80.0	16.0
Coast Guard Acquisition	200.0	100.0
Subtotal--Transportation	310.0	116.0
TREASURY		
Federal Law Enforcement Training Center	6.0	0.0
Customs--Document Processing	7.0	0.0
Customs Service S&E	36.0	9.0
Air Interdication Program	58.0	7.0
Alcohol, Tobacco & Firearms	11.0	7.0
Grants to Insular Areas	13.0	0.0
Subtotal--Treasury	131.0	23.0
DRUG CZAR	4.0	4.0
TOTAL--FY 1989	2,749.0	991.0

S.26, submitted on January 25, 1989, seeks appropriations for all authorized but not appropriated funds in the FY 1988 Anti-Drug Abuse Act.

Specific provisions of the Drug Bill concerning the roles of different agencies are numerous and entail hundreds of pages. Overall, however, other Federal Agencies, including the U. S. Customs Service, generally had their drug law enforcement authorities strengthened significantly by this drug bill.

The specific provisions of the Drug Bill pertaining to the Coast Guard reflect a "fine tuning" of the Coast Guard's law enforcement mission rather than creating additional roles for the Coast Guard.

SENATOR LAUTENBERG: The FY 1990 appropriation hearing for the Coast Guard covered the lack of funding available to the Coast Guard in the 311(k) fund for the Coast Guard to be in a position to respond to oil spills which could occur in the Delaware Bay, Delaware River, or in New York Harbor. Does the Coast Guard have a proposal it would like to submit, which would provide the Commandant and/or the Secretary of Transportation for a funding mechanism to provide immediate funds for containment and clean-up activities, in addition to those included in the 311(k) fund?

ANSWER: Yes. Passage of Comprehensive Oil Spill legislation, which includes adoption of International Protocols, would make the necessary funds available.

SENATOR LAUTENBERG: The Acquisition, Construction and Improvements (AC&I) appropriation account includes language requiring written warranties to be included in all contracts with prime contractors for major system acquisitions of the Coast Guard. Has the Coast Guard ever used the written warranty provision to go back to the manufacturer or contractors for major weapons systems acquisitions to insist on corrective action to be taken by contractors for weapons systems failures? Which major systems does the Coast Guard consider to be covered by such a warranty?

ANSWER: All major system contracts since 1984, with the exception of the Aerostat contract, have written warranties. The Coast Guard has used the written warranty provision five times to go back to the contractors to insist on corrective action to be taken.

SENATOR LAUTENBERG: The Committee understands that the U.S. Coast Guard funding requirements for pay increase in 1989 are being funded in a manner different than the pay requirements for other Department of Defense agencies. Is that accurate? Please provide for the record an explanation of the difference, if there is one. In addition, please provide the amount and the basis of calculating the amount needed for the Coast Guard to be dealt with on an even footing as other Department of Defense agencies. In addition, please provide draft bill language which could be included in the FY 1990 bill which would provide for an even-handed distribution of the funds included in the President's 1990 budget.

ANSWER: Yes, the Coast Guard's funding requirements for the 1989 military and civilian pay increase of 4.1% are being funded differently from Department of Defense (DOD) agencies. At the beginning of the executive branch's budget process for the 1989 budget the direction provided by OMB was to include a 2% pay increase for both military and civilian employees. It is our understanding that during the late fall, DOD (former Secretary Carlucci) negotiated to fully absorb a military pay increase of 4.1% as part of the 1989 budget. Because Coast Guard military employees

are treated equally as DOD military, the Coast Guard had to absorb the additional 2% pay increase.

Regarding civilian pay increases, the comparison with DOD is less clear - mainly due to the budget formulation process used by DOD versus most other federal agencies. Consequently, it is difficult to identify, with precision, what is needed to put the Coast Guard on an "even footing" with DOD. The Coast Guard can, however, provide a precise profile of FY 1989 and FY 1990 pay raise requirements (actual and anticipated) and concomitant shortfalls. Identified below is a table which spells out the FY 1989 and FY 1990 pay raise requirement, as well as actual and anticipated shortfalls.

COAST GUARD PAY SHORTFALL

FY 1989 Pay Raise:
(Dollars in millions)

Military: 4.1% Civilian: 4.1%

	FY 1989 3/4 Year	(FY 1990) Annualized	FY 1989 Full Year
Military	$26	$9	$35
Civilian	+ 4	+ 1	+ 5
Pay Raise	30	10	40
Funded	-14	- 9	-23
Shortfall	$16	$1	$17

FY 1990 Pay Raise:
(Dollars in Millions)

Military: 3.6% Civilian: 3.6%

	FY 1990 3/4 Year	(FY 1991) Annualized	FY 1990 Full Year
Military	$24	$8	$32
Civilian	+ 4	+ 2	+ 6
Pay Raise	28	10	38
Funded 1/	- 0	- 0	- 0
Shortfall	$28	$10	$38

1/ Although the President's Budget includes an "allowance" for $17 million for Coast Guard's FY 1990 pay raise under Functional Code 920 (separate schedule, section 5 of the President's Budget), it is not reflected in the Coast Guard's Budget.

The Coast Guard's total funding shortfall, relating to the 1989 military and civilian pay increase, is $17 million. In addition, although no funding has been provided in the Coast Guard's FY 1990 budget for the military and civilian 3.6% pay increase, expected to become effective January 1, 1990, the Administration's request for this funding is partially identified in a separate schedule in section 5 of the President's Budget, which reflects an allowance of 25% for a 3.6% military pay increase. In total, the 1990 funding need, based on 100% funding for a military and civilian pay increase of 3.6% is $38 million. Cumulatively, the Coast Guard's total

funding needs for 1989 and 1990 pay increases, including annualizations, are expected to be $55 million.

In response to your request for suggested language, the following is an example of language which might be included in the FY 1990 Appropriations Bill.

"For Operating Expenses $2,297,200,000 of which $45 million has been added to the Administration's request to fully fund the Coast Guard's pay increase shortfalls incurred as a result of absorption of 2.1% of the 4.1% FY 1989 pay increase, which became effective January 1, 1989, and as regards the anticipated 3.6% FY 1990 pay raise expected to become effective January 1, 1990." 2/

2/ Note: Excludes FY 1990 pay raise outyear annualization.

SENATOR LAUTENBERG: On page 26 of the justification, there is a program reduction category entitled "Annualization of FY 1989 Management Savings." This program reduction totals $5,539,000. Please provide for the record a detailed summary of how these savings were calculated; for example the justification on page 36 indicates that these reductions result from the decommissioning of two medium endurance cutters and 10 95-foot patrol boats. Were these the only vessel decommissionings during FY 1989, or previous fiscal years for which there would be a savings in FY 1989? If not, why were these other vessels decommissionings not included as part of the annualization of 1989 management savings?

ANSWER: The following is a detailed summary of how "annualization of FY 1989 Management Savings" were calculated:

ITEM	MIL. FTE	$ Amount (000)
Decommission USCGC TAMAROA	-21	-735
Decommission USCGC CHILULA	-62	-1,962
Decommission 10 Patrol Boats	-77	-2,842
Totals	-160	-5,539

These were the only cutters decommissioned during FY 1989. The reason they are displayed in the FY 1990 budget as annualizations is because they were decommissioned during FY 1989 for less than the full fiscal year. Partial funding had to be retained in the FY 1989 base to operate them up to their decommissioning date.

SENATOR LAUTENBERG: On page 36, the justification includes a list of reductions to be achieved as a result of the termination of one-time costs, which totals $1,979,000. Were each of the items listed on that page (and the following page) earmarks in the FY 1989 bill? If so, please provide copies of those earmarks for the record. If not, where did the list originate?

ANSWER: The items listed as reductions to be achieved as a result of the termination of one-time costs were all costs associated with line items that were a part of the FY 1989 budget. Copies of those budget line items are provided for the record.

c.) 378' WHEC Post-FRAM Follow-on ..... $ 1,200,000

Post-FRAM 378-foot High Endurance Cutters (WHEC) will require additional personnel to maintain and operate newly installed equipment and weapons systems. As a result of FRAM, the twelve 378-foot WHECs will be equipped with new air search radars, the MK-75/76 mm gun, the MK-92 fire control system, super-rapid blooming chaff launchers, Navy fleet satellite communications equipment, the LAMPS electronic package, Harpoon missiles, and the close-in weapons system (CIWS). Much of the equipment will enhance normal peacetime missions such as law enforcement and search and rescue, as well as supporting defense readiness capabilities. The first five of the twelve cutters were provided crew increases for operations and maintenance in FY 1988. Three more cutters will require personnel increases in FY 1989 to meet current FRAM completion schedules. The first four post-Fram cutters also require personnel for Harpoon/CIWS in FY 1989 when installations of these weapons systems begin. Post-FRAM follow-on crewing consists of nineteen billets per ship: fourteen for operations and maintenance and five associated with the new weapons systems on each ship. As national defense assets, 378-foot WHECs are tasked in Joint Chiefs of Staff operation plans for both contingencies and general war. The additional personnel are required to effectively carry out this tasking. Post-FRAM manning levels were generated by a study conducted at the U.S. Navy Manpower Engineering Center. The manning model has been validated by the General Accounting Office, the Department of Defense, and Congressional oversight committees.

Personnel:	POS	FTE
Military	93	40

d. 110' Island Class Patrol Boat Follow-on ..... $ 10,762,000

Funding and personnel are required to crew, operate, and maintain the ten new 110-foot Island Class Patrol Boats (WPBs) that will be delivered in FY 1989. These highly capable vessels will replace an aging fleet of patrol craft that can no longer be operated due to age-related deterioration and maintenance problems. The new WPBs are faster, have greater endurance, and possess better seakeeping abilities. Primary operational missions are enforcement of laws and treaties, search and rescue, and coastal defense operations.

Personnel:	POS	FTE
Military	272	199

e. 270' WMEC MAT and 270' WMEC Pipeline Training Follow-on ..... $ 640,000

Operations and maintenance funding is required for the final 270-foot Medium Endurance Cutter (WMEC) Maintenance Augmentation Team (MAT). Four new Famous-Class WMECs will rely on this dedicated shoreside MAT for maintenance support. The MAT support is essential since the 270-foot WMECs are not staffed to perform all required organizational level maintenance with the ship's force alone. The MAT must be staffed two quarters before arrival of the first cutter to accomplish necessary training and become fully capable of providing support to the cutters. In addition, an extensive amount of training must be accomplished on a "pipeline" basis prior to crew members reporting aboard the 270-foot WMECs. The realignment of Coast Guard support and management functions will free-up the military personnel (50 FTP) for the MAT and the military personnel for the pipeline training (24 FTP). USCGC THETIS, the first cutter assigned to this MAT, is scheduled to complete post-delivery retrofit work in February 1989. The last cutter in the group, USCGC MOHAWK, is scheduled to complete retrofit in January 1990.

j. Governors Island Housing Follow-on ..... $ 40,000

Previous AC&I projects funded 110 housing units. Construction of these units will be completed in 1989. Additional follow-on funding is required to maintain them.

k. Logistics Support for HU-25A/HH-65A Aircraft ..... $ 436,000

Personnel are requested to implement the final year of a multi-year initiative to improve aircraft logistics support at the Coast Guard's Aircraft Repair and Supply Center, Elizabeth City, NC. The Coast Guard's two new aircraft types, the HU-25A and HH-65A, require significantly more commercial and in-house support than their predecessors. These new aircraft are not in the Department of Defense (DOD) inventory and, therefore, DOD support services are unavailable. Sixteen personnel were provided in FY 1986, and nine personnel will be provided in FY 1988. The additional fifteen personnel requested for FY 1989 will provide the final staffing increment to support the new aircraft.

Personnel:	POS	FTE
Civilian	15	12

l. Air Interdiction Support Follow-on ..... $ 4,056,000

The Anti-Drug Abuse Act of 1986 assigned the Coast Guard a significant role in combatting air smuggling, which is a major part of the drug interdiction problem in the Southeastern United States. Personnel and funds were provided in the FY 1988 budget to begin implementing this new air interdiction mission. Additional military personnel and operating funds are needed for full operation in FY 1989. These resources will support two sophisticated Navy E-2C airborne early warning aircraft; air intercept radars and forward-looking infared sensors being fitted on eight HU-25A aircraft for safe interception of suspect aircraft at night and in poor visibility; and joint staffing of a Customs Service/Coast Guard command, control, communications and intelligence center which will coordinate air interdiction operations. The realignment of Coast Guard support and management functions will free up the military personnel (97 FTP) required. Operating funds are required.

m. Air Interdiction, Pilot Follow-on ..... $ 807,000

Increased demands from new air interdiction initiatives require an increase in the number of pilots trained at Naval Air Training Command (NATC), Pensacola, Florida. To realize this increase, the Navy requires additional Coast Guard aviators to be assigned to NATC as flight instructors. These additional billets and increased funds are an investment for future air interdiction pilots that are, and will be, badly needed to meet mission requirements. As a result of the investment, the Coast Guard can expect an additional ten student pilots per year, bringing the total yearly output to sixty.

Personnel:	POS	FTE
Military	7	7

n. Expanded OPBAT Operations ..... $ 14,972,000

Operation Bahamas and Turks and Caicos (OPBAT) is an initiative that provides Department of Defense (DOD) and Coast Guard helicopters and personnel to assist the Royal Bahamian Defense Force and Drug Enforcement Administration (DEA) in detection, pursuit, and apprehension of smugglers in the Bahamas. Presently, the Coast Guard provides its part of this support with one helicopter operating

twenty-four hours at one site in the Bahamas. The Coast Guard is committed to providing this support exclusively, at three sites as DOD support is withdrawn over the next two years. The Anti-Drug Abuse Act of 1986 established the United States-Bahamas Drug Interdiction Task Force and authorized $9,000,000 for additional pursuit helicopters for OPBAT. This request supports continued operations at the present site, personnel and operating funds for the additional helicopters, and resources for expanded operations in the Bahamas at a second site. Startup funding associated with the third site, which will be operational in the first quarter of FY 1990, is also included.

Personnel:	POS	FTE
Military	174	174

o. Bahamas Drug Interdiction Docking Facility Follow-on ..... $ 650,000

The Anti-Drug Abuse Act of 1986 authorized $5,000,000 to be used for initial design engineering, and other activities for construction of a drug interdiction docking facility in the Bahamas to facilitate Coast Guard and Royal Bahamian Defense Force drug interdiction operations in and through the Bahama Islands. Follow-on funding and personnel are required to operate this facility for two quarters.

Personnel:	POS	FTE
Military	23	12

p. Land-Based Aerostats Follow-on ..... $ 15,000,000

The Coast Guard will assume responsibility for operating land based aerostats on 1 October 1988 in accordance with the National Drug Policy Board's delineation of federal agency responsibilities. The Coast Guard and Customs Service are jointly responsible for air interdiction. Surveillance and detection responsibilities in the Southeast and international maritime areas are specifically assigned to the Coast Guard. Land-based aerostats in the Bahamas are important parts of maritime air interdiction strategy, providing the ability to detect and track air targets over a wide area. Radar coverage of the Bahamas is crucial to interdiction of aircraft which transfer illegal drugs among the many islands spread over 100,000 square miles of ocean. This budget item will provide for 7-day, 24-hour operation of the existing aerostat at High Rock, Grand Bahama Island, as well as an aerostat planned for Georgetown, Great Exuma. The Customs Service is now procuring the Georgetown aerostat, which may be operational as early as Spring 1988.

q. Expanded EPIC Operations ..... $ 150,000

The El Paso Intelligence Center (EPIC) is a joint-agency clearinghouse for tactical drug intelligence information. Through EPIC, drug interdiction agencies obtain necessary tactical intelligence. The Drug Enforcement Administration (DEA) is responsible for its management and operation and is planning an expansion to meet growing drug interdiction intelligence needs. The Coast Guard is a frequent user of consolidated information from EPIC, and currently has six personnel assigned. Even now, this number is insufficient to make effective use of available intelligence information. As EPIC's intelligence activities expand, the amount of potentially useful, but unused, information will grow. Additional Coast Guard personnel, with knowledge of Coast Guard intelligence needs, will remedy this situation. These additional personnel will provide continuous representation in watch sections to handle real-time intelligence requests from operational commanders and will analyze incoming intelligence information. Both maritime and air interdiction will be supported. The expected benefits will be a

better intelligence product from the center and increased success in maritime drug interdiction efforts.

Personnel:	POS	FTE
Military	5	5

r. HC-130 Aircraft Follow-on ..... $ 4,686,000

The FY 1986 Coastal Defense Augmentation Act (CDAA) and the Omnibus Drug Supplemental Appropriations Act of 1986 provided funds to purchase five HC-130 aircraft. They will increase the Coast Guard's inventory of HC-130 aircraft to 31. Additional funds and personnel were provided for the operation and maintenance of two of these five aircraft in FY 1988. This request provides funding to operate and maintain the remaining three aircraft. The realignment of Coast Guard support and management functions will free up the military personnel (75 FTP) required.

4. Increase or Restore Operational Capability:

Summary for this budget category ..... $ 12,660,000

Personnel Change:	POS	FTE
Military	64	43
Civilian	4	2

a. Rescue Swimmer, Phase IV ..... $ 1,400,000

This request provides personnel and funding to continue a multi-year, phased rescue swimmer program as directed by Congress. The FY 1989 phase will initiate the rescue swimmer program at the following Air Stations: Miami, FL; Savannah, GA; Detroit, MI; Cape May NJ; Los Angeles, CA; New Orleans, LA; and Houston, TX. Six air stations are currently staffed with rescue swimmers. Twenty-four air stations will eventually be staffed to provide this capability. The value of this program will increase in the future as the Coast Guard replaces its aging amphibious HH-52A and HH-3F helicopters with new HH-65A and HH-60J helicopters. Neither of the new helicopters has a water landing rescue capability.

Personnel:	POS	FTE
Military	41	31

b. Health Care Funding Increase ..... $ 3,200,000

Funds are required to provide a recurring health services funding base for two new programs. The Primary Medical Care for the Uniformed Services (PRIMUS) program, administered by the U. S. Army, and the Navy Contract Care program are new reimbursable programs for care of dependents of all military services. These programs result from the inability of existing military medical services to accommodate increased dependent medical care requirements. These programs provide medical care to which dependents are legally entitled on a demand basis. The cost of such care is billed to the military sponsor's service. Coast Guard must reimburse for these services when billed.

c. International Convention for the Prevention of Pollution from Ships (MARPOL) Enforcement ..... $ 500,000

Personnel and funding are needed to conduct inspections of vessels, terminals, and reception facilities to ensure compliance with Annexes I, II and V of the MARPOL. The vessel regulations issued under Annex I became effective on October 2, 1983 and those under Annex II

(noxious liquid substances) entered force on April 6, 1987. Annex V (plastics pollution) will become effective December 31, 1988. The Coast Guard has not received funding for this increased enforcement responsibility. To date only a limited vessel boarding and terminal inspection program is being conducted.

Personnel:	POS	FTE
Military	23	12

d. Port Access Control System ..... $ 100,000

This request is part of a major initiative to strengthen the Coast Guard port security capabilities worldwide. An essential element of the Coast Guard's port security program is control of personnel access, to protect ports, waterways, vessels and facilities. The Coast Guard is the only federal agency authorized to control personnel access in commercial ports. Recent mobilization exercises have identified port facility access control as a critical weakness. An additional benefit of the program is its ability to regulate access during certain peacetime evolutions. These include Military Preposition Ship (MPS) off-load and on-load operations, hazardous material operations, and terrorism threats. Currently there are forty-five port security card processing facilities, one at each Marine Safety Office and Captain of the Port, but they are not staffed to handle the workload. Additional resources will generate immediate benefits by reducing application processing time and will permit limited field testing of a prototype enhanced port security card system looking to implementation of a state-of-the-art system in subsequent fiscal years.

Personnel:	POS	FTE
Civilian	2	1

e. Environmental Compliance ..... $ 4,000,000

Funds and personnel are required to accomplish a two-prong approach to the Coast Guard's growing environmental compliance problems. The first prong continues the multi-year Underground Storage Tank (UST) program begun in FY 1988 to meet the mandatory requirements of the Resource Conservation and Recovery Act (RCRA). This will include: the installation of leak detection and monitoring systems on the USTs, the cleanup of contamination caused by leaking USTs, and the above ground replacement of tanks, or replacement with double-walled tanks with built-in monitoring systems. Only tank removal and replacement projects costing under $150,000 will be supported through this program. AC&I funds are proposed to support higher cost projects. The second prong requires funds and personnel to investigate Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and Superfund Amendments and Reauthorization Act (SARA) sites and to provide funds to pay for the Coast Guard's share at third party CERCLA cleanup sites. SARA, which amended and reauthorized CERCLA, includes several new sections which require federal facilities to identify and clean up their CERCLA sites. A staff consisting of environmental engineers, geohydrologists and lawyers with adequate travel funding will be established, beginning in Fiscal Year 1989, to guide this process.

Personnel:	POS	FTE
Civilian	2	1

f. Defense Readiness Exercise and Maritime Defense Zone Support ..... $ 360,000

The Coast Guard participates in Joint Chiefs of Staff directed worldwide Command Post Exercises (CPXs) as well as several Navy Fleet Training Exercises (FTXs) each year. Funding is required to increase

the support for defense readiness exercises and to provide travel, supplies, office equipment maintenance, and other administrative support to the Maritime Defense Zone commands.

6. Recruit, Train, and Maintain Service in All-Volunteer Environment

Summary for this budget category ..... $ 697,000

Personnel Change:	POS	FTE
Military	1	1
Civilian	1	1

a. Adjudicatory and Administrative Board Support ..... $ 100,000

Additional personnel and travel funds are required for adjudicatory and administrative boards. Due to inadequate funding, these boards are not being conducted in a timely manner, resulting in more new cases pending than old cases completed. This is detrimental to personnel who deserve timely resolution of their case, as well as to the Coast Guard which is often faced with keeping personnel on the payroll when they should be dismissed. Currently, personnel resources are also being diverted from other assigned duties to provide research and advisory opinions to the Personnel Records Review Board (PRRB) and the Board of Correction of Military Records (BCMR). Permanently assigned staffs are required to alleviate these problems.

Personnel:	POS	FTE
Military	1	1
Civilian	1	1

b. Participation in Joint Recruiting Advertising Program ..... $ 597,000

Military recruiting is becoming increasingly difficult due to the decreasing number of young adults in the country. The Coast Guard must compete with the other military services and civilian organizations to enlist high quality personnel. Previously, the Coast Guard has not been identified with the other DOD services in joint advertising campaigns. This funding will enable the Coast Guard to participate on a pro-rata basis in the joint campaigns with DOD counterparts in print, radio and television advertising to reach a much wider population of potential recruits at a minimal cost.

7. Improve Management Effectiveness and Productivity:

Summary for this budget category ..... $ 1,889,000

Personnel Change:	POS	FTE
Military	9	5
Civilian	25	15

a. External Civil Rights Program Staff ..... $ 115,000

Personnel are required for the Coast Guard's External Civil Rights Program. This Program must expand to cover requirements for review of federal financial grants to ensure compliance with civil rights law and to improve the level of Coast Guard involvement with Historically Black Colleges and Universities (HBCUs). Annually there are approximately sixty nonprofit organization recipients of federal

grants under the National Recreational Boating Safety Financial Assistance Program. These grants require compliance reviews that the Coast Guard is unable to conduct due to lack of personnel. A fully implemented External Civil Rights Program will assure Coast Guard's compliance with requirements of law.

Personnel:	POS	FTE
Civilian	2	2

b. Legal Case Management and Research Automation ..... $ 981,000

Funding is required for an interactive, high-speed information processing system. The system must be capable of communicating with commercial legal databases and the information systems of the other military services, particularly the Judge Advocate General Corps of the Navy and Army. The system will support full research, claims tracking, database management, and wordprocessing for the attorney, paralegal, and legal support staff.

c. Spare Parts Procurement ..... $ 793,000

The Coast Guard must improve its spare parts procurement process. The Competition in Contracting Act of 1984 requires the use of competitive procedures in order to obtain full and open competition in procurements and to significantly limit the use of noncompetitive procedures. The Coast Guard is currently purchasing a large number of parts noncompetitively as sole source procurements. Funding and personnel are required to gather technical data necessary to provide for spare parts to be competitively bid both for existing systems and for the new systems coming on-line. The Coast Guard will benefit from lower costs that should result from the competitive purchase of spare parts.

Personnel:	POS	FTE
Military	9	5
Civilian	23	13

SENATOR LAUTENBERG: On page 37 of the justification, a savings of $5,588,000 is budgeted as a result of decommissioning three medium endurance cutters. How does this differ from annualization of 1989 management savings related to the decommissioning of two medium endurance cutters? Where is the increased cost budgeted, in terms of which page of the justification, for these three new, more capable 270-foot Bear Class medium endurance cutters?

ANSWER: Two medium endurance cutters were decommissioned in the FY 1989 budget. Since they were decommissioned for a partial year, their reductions were annualized in the FY 1990 budget in the line item "Annualization of FY 1989 Management Savings."

Separate from these two medium endurance cutter decommissionings, an additional three medium endurance cutters will be decommissioned in FY 1990. These three cutters will be decommissioned for a partial year during FY 1990 and their annualized reductions will be displayed in the FY 1991 budget.

The three new, more capable 270-foot Bear Class medium endurance cutters were funded in the FY 1989 budget.

SENATOR LAUTENBERG. On page 37 of the justification, there is also a savings of $2,863,000 budgeted for the decommissioning of six patrol boats. How does this relate to the one-time annualization of FY 1989 management savings listed on page 36 of the justification?

ANSWER. The savings shown on pages 36 and 37 do not relate. The one-time annualization of FY 1989 management savings shown on page 36 result from FTE savings when two medium endurance cutters and 10 95 foot patrol boats were decommissioned for a fraction of FY 1989. The savings shown on page 37 result from plans to decommission 6 95 foot patrol boats at various times during FY 1990. Those cutters will be replaced by new, more capable, 110 foot Island class patrol boats.

SENATOR LAUTENBERG: Throughout the justification, increases or decreases are indicated, but the base amount is not indicated. For example, on page 38, item E., there is a reduction in leased housing costs projected of $137,000; item F., is a reduction projected of $455,000 in the interagency program adjustment category. For neither of those two items, however, is the base amount listed. Please include the base amount for items like this throughout the justification, and indicate what percent of the base these reductions represent. A table for inclusion in the record would be helpful.

ANSWER: For the Budget Category I (reduction) items there is no base to deduct from except for the overall Coast Guard Operating Expenses Appropriation (OE). For example, item B. "Termination of One-Time Costs" contains a summary of incremental increases received in the FY 1989 budget for start-up operations. These funds are no longer needed for FY 1990 so they should be removed from the Coast Guard's OE base going into FY 1990. The reductions for the cutter decommissionings, items C and D are all of the funds in the base that operated those units. For item E., "Reduction in Leased Housing Program Costs", the savings of $137,000 are taken from the gross base for the Leased Housing Program of approximately $24,500,000. The savings as reported by the Department of Transportation, Inspector General's audit in the 11th Coast Guard District, are a result of better management of the Leased Housing Program and better utilization of unaccompanied personnel housing in the 11th District. Item F., the reduction projected at $455,000 in interagency program adjustments, was a result of a decrease of $804,000 in the Coast Guard's portion of the National Security Emergency Preparedness (NSEP) telecommunications system; and a partially offsetting increase of $349,000 for Workman's compensation and contract services. The fiscal year 1989 base for NSEP was $1,155,000. In general, those items listed in Budget Category I are adjustments for one-time or part year funds that are no longer required.

SENATOR LAUTENBERG: On page 38 of the justification, Item F., there is a partially offsetting increase of $349,000 budgeted as being necessary for workmen's compensation and contract services. Why isn't this a part of the built-in changes for the Coast Guard budget?

ANSWER: In terms of format, it would have been technically correct to cite only the reduction of -$804,000 for National Security Emergency Preparedness (NSEP) under "Program Reductions", and reflect the increase of $349,000 for workmen's Compensation and contract services under "Built-in" changes. In the past, however, both items have usually reflected increases and were presented in a single line item (Inter-Agency Adjustments) under "Built-in changes". Since the end result is not changed by the method of presentation, and the amounts involved are clearly stated, we

presented both items together for simplicity and consistency with the past.

SENATOR LAUTENBERG: On page 38 of the justification, there is a proposed productivity savings of $2,442,000, which will be achieved as a result of improved productivity and management efficiencies. Please provide a complete list of those for the record.

ANSWER: FY 1990 proposed productivity savings of $2,442,000 are based on the activities under review that are scheduled to be completed during FY 1989. Prior to completion of all FY 1989 A-76 reviews, we have no way of knowing which activities will be contracted, and which will be retained for continued in-house performance. Therefore, we have the estimated FTE savings, based on approximately $8,500 per FTE (per OMB guidance) to be achieved from the following activities to be reviewed during FY 1989.

ACTIVITY	LOCATION	FTE
Buoy Maintenance	San Francisco CA	5
Facility Maintenance	Sitka AK	25
Industrial	Woods Hole MA	23
Facility Maintenance	Baltimore MD	23
Security	Petaluma CA	10
Security	Alameda CA	9
Facility Maintenance	Alameda CA	10
Facility Maintenance	Seattle WA	17
Facility Maintenance	Mobile AL	39
Industrial	New Orleans CA	52
Industrial	Boston MA	69
Facility Maintenance	Petaluma CA	27
Ind/Fac Maintenance	Alameda CA	87
Facility Maintenance	Clearwater FL	16
Facility Maintenance	Charleston SC	11
Facility Maintenance	New London CT	98
Facility Maintenance	Borinquen PR	29
Industrial	San Pedro CA	31
Industrial	New York NY	87
		668
		x.43
		287.24
		x $8,500
	Estimated Savings 1/	$2,441,540

At the time of the initial FY 1990 budget submission, the above list of activities was scheduled for review during FY 1989. As a result of changes in priorities, several of the activities listed may not be completed during FY 1989.

1/ Historically, when a review is completed, OMB estimates an average savings of 43 percent of the positions reviewed and associated dollars.

SENATOR LAUTENBERG: On page 39 of the justification, there is an increase of $10,003,000 requested for annualization of FY 1989 part-year funding. For the record, please provide a complete list of the projects and the amount of funding by project, and indicate

where in the FY 1989 justification those FY 1990 costs were identified.

ANSWER: The requested information is as follows:

PROJECT	AMOUNT	FY 1989 BUDGET PAGE
- 378-foot High Endurance Cutter Post-FRAM Follow-on	$1,471,000	Pg 45
- 110-foot Island Class Patrol Boat Follow-on	3,062,000	Pg 46
- Operate USCG Cutter LEGARE	1,548,000	Pg 47
- Operate USCG Cutter MOHAWK	2,327,000	Pg 47
- Bahamas Drug Interdiction Logistics Support for HU-25A/ HH-65A Aircraft	115,000	Pg 48
- Docking Facility Follow-on	259,000	Pg 50
- Rescue Swimmer, Phase IV	213,000	Pg 52
- International Convention for the Prevention of Pollution from Ships (MARPOL) Enforcement	307,000	Pg 53
- Port Access Control System	89,000	Pg 53
- Environmental Compliance	31,000	Pg 54
- Spare Parts Procurement	581,000	Pg 59
Total	$10,003,000	

SENATOR LAUTENBERG: For projects funded in FY 1990 in the President's Budget, please indicate what the FY 1991 and out-year costs will be to operate those increases.

ANSWER: Following is a table which reflects the FY 1991 and out-year (through FY 1994) operating costs for those Acquisition, Construction, and Improvements projects requested in the FY 1990 President's Budget. The cost data provided are our best projections of future-year costs; however, there are many factors involved (such as cost of living adjustments) which could result in the actual costs being either more or less than originally projected during the planning process. In addition, they have not undergone full budgetary review.

Project Title	FY 1990 Request	Operating Costs ($000) FY 91	FY 92	FY 93	FY 94
1. Polar Icebreaker Replacement #1	244,000	0	0	0	0
2. Motor Lifeboat Replacement	5,800	0	0	0	0
3. Buoy Tender Capability	3,200	0	0	0	0
4. Replacement Cutter Boats	2,600	0	0	0	0
5. Complete Second District Barge	1,100	0	0	0	0
6. 378' WHEC FRAM	97,000	6,800	6,800	6,800	6,800
7. 210' WMEC MMA	8,000	0	0	0	0

8. 378' WHEC Weapons System[1]	10,000	0	0	0	0
9. Service Life Extension Project	3,200	0	0	0	0
10. Polar Class Reliability	1,300	0	0	0	0
11. HH-60 MRR (+Simulator)	132,000	3,530	4,935	5,992	5,158
12. HH-65 SRR Supplemental Spares	18,100	0	0	0	0
13. HH-65 SRR Engine Availability	10,200	0	0	0	0
14. HU-25 MRS Sensors	8,100	0	0	300	300
15. TALON	7,100	0	0	0	0
16. HU-25 Engine Improvement	1,600	0	0	0	0
17. HU-25 Spare parts Shortfall	25,000	0	0	0	0
18. Distributed Computing	1,900	1,300	1,300	1,300	1,300
19. SARSAT LUTS	2,600	320	260	260	260
20. GPS Installation	1,600	184	240	536	1,136
21. C-130 FLAR	4,900	0	0	9,000[2]	9,000
22. AR&SC Computer	1,500	0	0	0	0
23. Portable Intelligence Collection System	700	290	290	290	290
24. Minor AC&I Projects	8,100	364	364	364	364
25. Underground Storage Tanks Cleanup	1,000	50	50	50	50
26. Southeast U.S. Facility	5,100	240	240	240	240
27. Seattle, WA - Pier 35	1,200	163	163	163	163
28. Elizabeth City, NC - Clinic	3,200	101	101	101	101
29. Kodiak, AK - Fuel Farm	1,900	66	66	66	66
30. Petaluma, CA - Waterline	2,400	0	0	0	0
31. Cape May, NJ - Beach Erosion	3,400	450	450	450	450

32. Public Family Quarters	7,600	0	0	0	0
33. Ketchikan, AK - Base Renovation	4,900	160	9	9	9
34. Palm Beach, FL Sta Lake Worth Inlet	3,200	230	230	230	230
35. Rodanthe, NC - Rebuild Sta Oregon Inlet	3,600	0	0	0	0
36. Southport, NC - Rebuild Sta Oak Island	3,000	89	89	89	89
37. Greenville, MS Relocate Moorings	2,200	101	101	101	101
38. East Tawas, MI Rebuild Station	2,200	85	85	85	85
39. Waterways SRA	6,700	972	1,180	1,510	1,840
TOTALS	651,200[3]	16,155	17,737	28,461	28,377

NOTES: 1 Operating costs included in out-year funding for 378' WHEC FRAM (item #6).

2 AC&I contract for support terminates at the end of FY 92. Contractor support for the entire FLAR program is presently projected to be $9 million per year.

3 Excludes $31,100,000 for Personnel and Related Costs and Survey and Design line items.

SENATOR LAUTENBERG: Item C. on page 39 includes a $36,323,000 adjustment for inflation. Please provide for the record a copy of the pertinent section of OMB circular A-11 indicating that the requested non-pay cost of living adjustment is consistent with the guidance provided in that circular. Also provide for the record a summary of the calculations which resulted in the amount of $36,323,000 budgeted for FY 1990.

ANSWER: Section 23.3.a is the pertinent section of OMB circular A-11 which provides the guidance for the proper non-pay cost of living adjustment (COLA) used in the Coast Guard's 1990 budget. The following is a summary of the calculations of the non-pay COLA:

(Dollars in thousands)

FY 1989 Operating Expenses Appropriation.....		$2,096,116
FY 1989 Pay/Rent Costs:		
Estimated Pay Costs.....	$1,042,108	
Estimated GSA Rent Cost.....	27,730	
BAQ/VHA (Non-subsidized costs)..	17,306	
Less FY 1989 Pay/Rent Costs.....		-1,087,144
Total Non-Pay Costs.....		1,008,972
FY 1990 Inflator percentage (GNP deflator)..		x .036
FY 1990 COLA Estimate.....		$36,323

A copy of Section 23.3.a of OMB circular A-11 follows:

23.3. Adjusting for the effects of future inflation.

For non-pay related programs, these instructions will be used to adjust current services estimates for the effects of future inflation on budget authority, outlays, and receipts. Exhibit 23B applies *hypothetical* price measures to an account that includes pay-related expenses and nonpay expenses. Exceptions to the inclusion of future inflation in the estimates are listed in section 23.2(b)(2).

The following guidelines will be used to adjust current services estimates for the effects of future inflation:

(a) Budget authority.—Only nonpay-related budget authority will be adjusted for general inflation. Therefore, to adjust estimates for inflation for programs containing pay-related items, the budget authority for the program should be separated into nonpay-related and pay-related components. The GNP deflator will be used to adjust all nonpay-related items. Pay-related costs will be estimated as described in section 23.2(b) above.

(b) Outlays.—Outlays will be estimated on the basis of standard spendout formulas using the budget authority levels calculated above; that is, outlays in a given year should be the sum of first-year spendout from that year's budget authority plus spendout from prior-year balances.

(c) Receipts.—Offsetting collections and other program revenues will be adjusted for inflation if the level of anticipated receipts is expected to vary with price levels.

SENATOR LAUTENBERG: The Coast Guard has requested an increase of $5,706,000 for increased rent for the General Services Administration (GSA). Please provide for the record a five-year summary of square footage of space leased, cost per square foot, and total Coast Guard space costs. Is this increase a result of increased space requirements for the Coast Guard, or of increased costs in the value per square foot?

ANSWER: A five-year summary of leased space is attached. The increase of approximately $5.7 million in rental payments to the General Services Administration (GSA) in FY90 is a result of both increased Coast Guard space requirements and increased costs in the value per square foot for GSA-assigned space. The $5.7 million in rental payments contains $852,700 in rent charges directly related to the increase of approximately 61,000 square feet of GSA-assigned space in FY90 for known new field space requirements. The remaining $4,847,220 of the $5.7 million is related to rent increases associated with the existing 1,963,054 square feet of GSA-assigned space utilized by the Coast Guard. The above assumes no cap on GSA rent costs for FY90.

GSA RENT FIGURES FOR FY85-FY89
(BASED ON LATEST AVAILABLE DATA)

	TOTAL COST	TOTAL SQ FT	SQ FT RATE	CONGRESSIONAL ACTION	ESTIMATED ACTUAL COST IF NO CONGRESSIONAL ACTION	DIFF BETWEEN ACTUAL AND REDUCED COSTS
FY85	$22,280,724	1,990,000*	11.20	N/A	N/A	N/A
FY86	$22,802,559	1,999,569	11.40	N/A	N/A	N/A

FY87	$24,019,950	1,986,590	12.09	NO 15% RATE INCREASE FOR GOV	$27,622,943	$3,602,993
FY88	$23,645,000	1,854,200	12.75	RATES FROZEN FY87 LEVELS	$28,007,503	$4,362,503
FY89	$24,998,000	1,907,210	13.11	RATES 102% OF FY88	$29,029,540	$4,031,540
FY90**	$31,333,717					
RECURRING BASE	$25,672,000					
SHORTFALL	$5,661,717					

* REPRESENTS BEST ESTIMATE

** ESTIMATE BASED ON NO CONGRESSIONAL REDUCTION IN GSA RENT COSTS FOR FY90 AS WELL AS REINSTATEMENT OF RATE INCREASES FROM FY87, 88, AND 89. ALSO INCLUDES SPACE INCREASES FOR FY90 TOTALING $852,700.

SENATOR LAUTENBERG: To operate the Coast Guard Yard, the Coast Guard has requested an increase of $2,453,000 in FY 1990. Please provide for the record a five year funding history of the Coast Guard Yard, including those amounts that were budgeted directly for the Coast Guard Yard, and those amounts that were charged to project funds. Indicate for each project how much money was included for the Yard versus how much was included directly for the Yard in appropriation bills.

ANSWER: This is not a request for an increase, but a restoration of billets cut as part of the FY 1988 plan to close the Coast Guard Yard. The Coast Guard Yard is not closing, and in fact, no billets were ever cut or reduced at the Coast Guard Yard. However, the billets and funding were removed from the overall Coast Guard budget. This request restores the Coast Guard budget base.

The Yard is funded from the Operating Expenses appropriation; Acquisition Construction and Improvements appropriation; and from the Yard Fund revolving account.

OPERATING EXPENSES APPROPRIATION*
(Dollars in millions)

FY89	1.83
FY88	1.10
FY87	1.37
FY86	1.42
FY85	1.75

*Does not include Operating Expenses funds for Supply Center Curtis Bay, now a separate command.

AC&I CAPITAL IMPROVEMENTS AT YARD
(Dollars in millions)

	AMT	PROJECTS
FY89	1.0	Acid Cleaning Bldg, Flammable Storage
FY88	0	
FY87	0	
FY86	1.3	MK75 Overhaul Facility
FY85	1.8	Sandblast Shop

YARD FUND**
(A revolving fund)
(Dollars in millions)

FY89	27.92
FY88	50.20
FY87	68.21
FY86	45.16
FY85	51.31

**Identified in President's Budget Requests as Fund Balance available at end of year.

APPROPRIATED PROJECT FUNDS EXECUTED AT THE YARD
(Dollars in millions)
(deposited into the Yard Fund)

	210' "A" CLASS WMEC MMA	180' WLB SLEP	270' WMEC RETROFIT	SECOND DISTRICT BARGES
FY89	***11.55	0.00	0.00	0.75
FY88	0.76	10.17	0.81	0.33
FY87	3.29	4.03	0.68	5.28
FY86	19.84	13.52	0.31	0.46
FY85	6.02	7.60	2.38	0.00

***Anticipated

SENATOR LAUTENBERG: On page 41 of the justification, the Coast Guard is requesting an increase of $7,873,000 related to funding two E-2C aircraft to be transferred from the Customs Service to the Coast Guard. Will the Customs Service transfer any money to the Coast Guard to accompany the aircraft? If not, why not? If so, how does the Coast Guard compute that they need additional funding? What is the basis for the $7,873,000 request? Further, how does the operation of the E-2C aircraft relate to plans to equip Lockheed C-130's with radar systems to permit interdiction of drug traffickers? Will the use of C-130's increase drug interdiction rates? Will use of four E-2C's rather than two E-2C's increase interdiction rates?

ANSWER: The Custom Service's E-2C's will be returned to the Navy. Thereafter, through a Coast Guard/Navy Memorandum of Agreement, the Navy will transfer two E-2C's to the Coast Guard. The Coast Guard assumes that the transferred E-2C's will be fully mission capable (for all systems installed) and that an adequate initial lay-in of selected spares and support equipment will also be transferred with the aircraft. The Coast Guard will not receive a transfer of funds from the Customs Service to operate and maintain the two transferred E-2C's commencing in fiscal year 1990. Customs FY90 budget was reduced because of the transfer of the two aircraft. Since the Coast Guard now has 2 1/2 years of experience operating and maintaining E-2C's, the costs for the two additional aircraft are based on historical cost data and anticipated future needs.

Our plan to equip C-130's with Airborne Early Warning (AEW) radar systems is complementary to our operation of E-2C's, and it tracks with our strategy of building a "defense in depth" against the air smuggling threat. Long range, long endurance C-130 AEW aircraft will enable us to project our air detection capability into the deep Caribbean and allow us to track suspect aircraft from their departure from source countries. Suspect aircraft will be "handed

off" by the C-130's to shorter range, shorter endurance E-2C's operating in the transit zones. The E-2C's will, in turn, "hand off" suspects to interceptors as they approach the U.S. or Bahamas. We anticipate a short term increase in interdiction rates with the advent of C-130 AEW aircraft working in concert with four E-2C's. However, as this "defense in depth strategy" matures, we would hope to be successful enough to deter smugglers by forcing them to turn to more expensive, less profitable smuggling methods. It should be noted that this strategy is currently under review by the Department of Defense, which has the lead role in detecting and monitoring aerial and maritime transit of illegal drugs into the United States.

SENATOR LAUTENBERG: How much money has the Coast Guard requested from the Navy for radar systems to be installed on either C-130's, E-2C's, or Falcon jets (or other aircraft) to be operated by the Coast Guard? How much money is required for those installations? Are there other sources of funds being used to retrofit C-130's with radar systems to be used to detect drug traffickers? If so, please identify them for the record.

ANSWER: For the C-130, the Navy has agreed to provide an AEW radar system for installation on a Coast Guard aircraft. The Coast Guard will provide the funding to install the radar system. The system will be installed on existing Coast Guard C-130's. Installation cost is estimated at $41 million for each unit. At present, the Coast Guard has been appropriated only $17 million. The Coast Guard intends to request additional funds in a future budget year.

No other funds have been requested from the Navy for E-2C or Falcon Jet radars.

SENATOR LAUTENBERG: Please provide for the record, by the following categories, a list of equipment in the Coast Guard inventory: (a) equipment being phased out of the Coast Guard inventory; and (b) equipment being brought on-line in the Coast Guard inventory, and the costs associated with each over the long term. For example, in aircraft, we have the HH-65A and other helicopters currently being used by the Coast Guard. What is the overall Coast Guard plan, including replacement plans and life cycle costs, in terms of helicopter type, number and composition for the entire helicopter fleet? What is the Coast Guard long term plan for vessel composition, type and number? What are the relationships between the 378-foot high endurance cutters being refurbished through the FRAM program and other vessel requirements requested in the 1990 budget?

ANSWER:

AIRCRAFT

TYPE	NUMBER OF AIRCRAFT	EST. SERVICE LIFE(YR)	OPS+MAINT COST/ACFT PER YEAR ($000)	REPLACEMENT COST ($ MILLION)	PLANNED INVENTORY (EOFY) 90 91 92 93
HC-130H	31	20	1,532	19.3	31 31 31 31
HU-25	41	20	1,239	9.4	41 41 41 41
HH-3F	36	20	736	Out of Prod.	36 30 19 12

CH-3E	6	20	736	Out of Prod.	6	6	6	0
HH-60J	0	20	862	10.2	5	15	25	32
HH-52A	13	20	497	Out of Prod.	0	0	0	0
HH-65A	93	20	711	5.6	96	96	96	96
VC-4A	1	20	509	Out of Prod.	1	1	1	1
VC-11	1	20	697	14.8	1	1	1	1
E-2C	2	20	1,757	38.0	4	4	4	4

The replacement of the HH-52A helicopter with the HH-65A helicopter commenced in November 1984 and is scheduled to be complete in August 1989. Implementation of the HH-65A commenced in November 1984 and is scheduled to be complete in August 1989. Replacement of the HH-3Fs not supporting Operation Bahamas Turks and Caicos (OPBAT) will commence in March 1990 with delivery of the first HH-60J and is scheduled to be complete in April 1993, leaving 12 HH-3Fs to support OPBAT (nine operational and three support).

CUTTERS

Type	Operating Vessels	Annual Operation Maintenance Cost Per Hull	Upgrade/Replacement Plans
WHEC	7	$2,800,000	5 vessels currently in FRAM (Fleet Renovation and Modernization).
WMEC	33	$1,500,000	Two 210' WMECs currently in MMA (mid-Life Maintenance Availability). Three new 270' WMECs will replace three older WMECs in fiscal years 1990 and 1991; however, 5 older WMECs will remain in service. These 40+ year old vessels can be expected to be decommissioned in a few years. No candidate to replace the capacity they now provide has been identified.
WPB	94	$300,000	Four new Island Class Patrol Boats will replace the last of the aging 95' WPBs in fiscal year 1990. The Heritage Class Patrol Boat, now approaching the prototype construction phase, is the planned replacement for the 82' WPBs (currently 53) which are expected to remain in service through the 1990s.

The 1990 budget includes a request for $800,000 for 378' WHEC Post-Fram Follow-on. This will provide the additional people to operate and maintain newly installed equipment and weapons systems and to crew them at battle stations. As a result of FRAM, these vessels will be equipped with new air search radars, the MK-75/76 mm

gun, the MK-92 fire control system, super rapid blooming chaff launchers for missile defense, Navy fleet satellite communications equipment, the Light Airborne Multipurpose System (LAMPS) electronic package, Harpoon missiles and the Close-In Weapons System (CIWS). In fiscal year 1990, four cutters require the additional personnel to operate/maintain the newly installed Harpoon/CIWS systems, and one requires additional operations and maintenance crewing.

ICEBREAKERS

Decommissioned icebreakers:

CGC GLACIER, decommissioned without replacement in June 1987.
CGC WESTWIND, decommissioned without replacement in February 1988.
CGC NORTHWIND, last of the WW-II era Wind-class icebreakers, was decommissioned without replacement in January 1989.

Polar Icebreaker Replacement: Requirements for polar icebreakers have been addressed in at least six studies since 1973. The most recent and most thorough was the 1984 Polar Icebreaker Requirements Study (PIRS). Undertaken at the direction of the Office of Management and Budget (OMB), PIRS participants included the Navy, the Maritime Administration (MARAD), the National Oceanic and Atmospheric Administration (NOAA), the National Science Foundation (NSF), the Office of the Secretary of Transportation (OST), OMB, and the Coast Guard. A review of new information and events since completion of PIRS essentially validates the PIRS conclusion that at least four Coast Guard icebreakers are needed to meet long-term U.S. requirements. At present the Coast Guard operates two polar icebreakers, the POLAR STAR and POLAR SEA. Funds are being requested in the President's FY90 budget for a third polar icebreaker to be operational in the mid-1990's. Funding for a fourth polar icebreaker will be the subject of consideration in a future budget.

Estimated Life Cycle Cost For Third Polar Icebreaker:*

Procurement	$324.7 million
Operations Cost ($7.4 million per year)	$ 73.2 million
Mid-life Rehab Cost	$ 7.8 million
Total	$405.7 million

* Based on a 30-year life using FY-90 Dollars.

CUTTER BOATS

This project will replace existing boats aboard cutters with a standard design, diesel powered, Rigid Hull Inflatable (RHI) Boat. All ships 180 feet and above currently have a Motor Surf Boat (MSB) and an outboard powered, 6 meter RHI as the standard configuration. The MSB is currently beyond its 15 year life expectancy and is becoming increasingly expensive to maintain with costs ranging up to

$25K for rehabilitation of a waterlogged boat (an increasingly common occurrence). The outboard powered RHI has proved to be a very effective boat and has become the boat of choice since its introduction in the early 80s. However, nearly all RHIs have exceeded their projected life of five years and have design drawbacks which affect crew and passenger safety. The outboard engines require large quantities of gasoline to be stored aboard cutters, creating an unnecessary fire hazard, especially aboard flight deck equipped ships. Additionally, the outboards have proven unreliable in open sea conditions. Problems encountered include hard starting and a tendency to stall when engulfed by a following sea. Much has been learned from our experience with RHIs over the last few years that will be used to replace these outmoded and potentially dangerous small boats with state-of-the-art, safer and more efficient craft.

The project to replace shipboard boats calls for procuring 150 rigid-hulled inflatable boats over a five year acquisition period. In FY90 the Coast Guard intends to procure the first 30 RHIs. These replacement RHIs will be inboard/outboard powered 7-meter rigid hull inflatables. The RHIs will meet all design and performance requirements and have a 10-year service life. The new RHI design will also remove a fire hazard aboard cutters by drastically reducing the amount of gasoline carried on board.

APPROXIMATION OF NET RESOURCES REQUIRED ($000):

FY90	FY91	FY92	FY93	FY94	TOTAL
2,550	2,550	2,550	2,550	2,550	12,750

Delivery Schedule:

Award contract for 150 RHIBs:	Aug 90
Delivery of the first 30 boats is estimated for:	Nov 90
(Will purchase 30 boats/year for five years)	

Key Milestones:

Aug 89: Issue Solicitation package
Mar 90: Contract Prototypes
Jun 90: Deliver Prototypes
Jul 90: Evaluate Shore and Cutter Prototype Tests with recommendations to SSO Award contract
Sep 90: Begin delivery of first 30 boats

TOTAL LIFE CYCLE COST PER RHI*

Value Year	Cost	Est.Amount	#of Payments	Present Cost
0	Procurement	$85,000	1	$85,000
1-10	Maintenance	350	10	2,150
1-10	Fuel	4,000	10	24,578
5	Overhaul hull	5,000	1	3,100
5	Overhaul Engine	12,000	1	7,451
				$122,279

*These numbers are based upon average current costs in each category and a projected 400 operating hours per year. Estimated amount in FY91 dollars. Present value discounts the amounts shown using a discount rate of 10%. Estimated amounts not adjusted for inflation.

MOTOR LIFE BOATS

A multi-year program was started in FY-88 to replace the Coast Guard's aging fleet of 105 44Ft MLBs. A total of 117 New 47' boats are planned in a coordinated effort to consider the capability of the new boat where it might be sufficient to replace both the 44Ft MLB and our 41-foot utility boat at an overall reduction of 46 hulls.

A contract was awarded in June 1988 for the design and construction of a prototype motor lifeboat replacement. Following a successful prototype evaluation, the Coast Guard will execute a contract option in FY-90 for the construction of 5 pre-production boats incorporating modifications recommended during the prototype evaluation. The 5 pre-production boats will be evaluated at MLB stations in the northwest, northeast, and middle Atlantic coastal areas starting in FY-91. Design changes recommended during the pre-production evaluation will be incorporated into the full production replacement specification. The full production construction contract is scheduled for award in FY-92; funding will be required through FY-96; actual construction will extend into FY-97.

APPROXIMATION OF NET RESOURCES REQUIRED ($000) (FY91 DOLLARS):

FY88-90	FY91	FY92	FY93	FY94	FY95	FY96	TOTAL
$7.8M	$1.0M	$15.8M	$16.1M	$16.2M	$16.3M	$16.4M	$89.6M

Delivery Schedule:

Prototype Boat:	May 1989
5 Pre-Production Boats:	Aug-Nov 1991
Full Production Boats:	1992-1997

Key Milestones:

Nov 88: Start performance of Prototype and Pre-production boat contract
Apr 90: Start Prototype test and evaluation
Oct 90: Exercise 5 boat Pre-production contract option
Nov 91: Deliver last Pre-production boat
Start Pre-production evaluation
Jun 92: Complete Prototype and Pre-production testing

LONG RANGE AIDS TO NAVIGATION (LORAN)

The Coast Guard is constructing four new Loran-C stations in the mid-continent region of the United States and expanding the signal coverage of seven others. The purpose of these stations is to complete Loran-C coverage of the continental United States for aviation use. The expansion is funded by the Federal Aviation Administration from the Airport Trust Fund. The expansion will cost $36.5 million and is expected to be completed in December, 1990. The annual operating costs are expected to be $2.5 million/year.

ATON SERVICING VESSELS

The projected inventories for the below categories of aids to navigation (ATON) servicing vessels are based on the projection that the Short Range Aids to Navigation (SRA) population (ie. buoys,

lighthouses, etc.) will remain relatively constant over the next ten years (as it has over the past 10 years). The OMB Circular A-109 process which we must follow to acquire most of these replacements requires a commercial design competition. Until the latter stages, we will not have sufficient information on the actual design to make life cycle cost projections.

BUOY TENDERS: The number of seagoing buoy tenders (WLBs) and coastal buoy tenders (WLMs) has been reduced from a total of 60 vessels in commission twenty years ago to a total of 39 vessels. The current fleet mix is 27 WLBs and 12 WLMs. The primary reason for the reduction of the fleet size has been the improvement of technology (i.e. acetylene gas buoys to primary batteries to solarized buoys) and implementation of Booz-Allen Study recommendations (i.e. buoys to beacons where possible and formation of Aids to Navigation Teams - ANTs). However, 7 of the 12 WLMs are past the end of their service life, and, with the exception of 6 WLBs that recently went through Service Life Extension Program (SLEP), all the WLBs are at the end of their service life. A Service Life Extension Project (SLEP) is being done at the Coast Guard Yard as a "stop gap" measure to keep the fleet running until replacement buoy tenders are delivered since the WLBs are approaching 50 years in age. An Office of Management and Budget (OMB) Circular A-109 acquisition project is underway to build new WLBs. The number of replacement WLBs depends on the design of the replacements and a review of the multimission requirements for these ships. The A-109 process for the WLMs has not yet commenced.

RIVER TENDERS: Both the current and projected inventory for river buoy tenders (WLRs) is 18; two of which are being replaced by two new tenders scheduled to be delivered in the summer of 1989. River buoy tenders are vessels consisting of a tug pusher and a barge. New barges being constructed for the Second Coast Guard District river tenders are almost complete. The next to last barge is presently under construction, and the request in the FY 90 budget is to complete the last of the needed eleven new barges for a total of 18. The basis for the replacement was the Ship's Structure and Machinery Evaluation Boards (SSMEB) which determined that the eleven oldest barges needed to be replaced.

DISTRICT NINE BARGES: A project to build two 120' Aids to Navigation barges for use in the Ninth District has been approved. Funding sufficient to build one barge was included in the FY89 budget. Funding for the second barge will be requested in a future budget. These barges will be limited to the protected and semi-protected waters of the Great Lakes. These barges were conceived as a productivity improvement to replace two 180' WLBs and at the same time improve the utilization of two of the existing Ninth District Icebreaking Tugs (WTGBs).

BUOY BOATS: There are 52 aids to navigation boats of over 40 feet in the inventory. Thirty of the 52 buoy boats are past the end of their useful life. Approximately half of these older boats were built between 1966 and 1969 and the other half were built between 1954 and 1962. A 49 foot buoy boat has been designed as a replacement. The new boats are expected to have increased speed, better accommodations, supportability, and dependability. Based on these improved factors, fewer boats will be necessary to replace the

thirty presently past their useful life. Funding for replacement buoy boats will be the subject of consideration in a future budget.

SENATOR LAUTENBERG: On page 42 of the justification, the Coast Guard requests $10,500,000 to operate two land-based aerostats, one on the Gulf of Mexico and one in the Caribbean. Please describe for the record the role that these two aerostats will play in the maritime interdiction strategy. Also provide for the record how the use of these aerostats will be coordinated with other aerostats owned or operated by Customs Service or other Federal agencies.

ANSWER: The Land Based Aerostat (LBA) located in the Caribbean will be sited on Great Inagua Island (CARIBALL III). It will be used to detect northbound air and surface traffic transiting the Windward Passage between Cuba and Haiti, and entering the southern Bahamas. The other aerostat for the Gulf of Mexico is presently operated by the Air Force at their Cape Canaveral site. This aerostat will be transferred to the Coast Guard and will be relocated to the southwestern Florida coast. It will detect traffic coming up from the Yucatan Channel between Mexico and Cuba, and entering the Gulf of Mexico. Data from all the Gulf and Caribbean aerostats will be linked to the joint Customs/Coast Guard C3I Center in Miami, FL for processing and evaluation.

SENATOR LAUTENBERG: The justification states that this request will provide 24-hour, 7 day per week contractor operation for those aerostats which become operational in FY 1990. Please include for the record the estimated construction schedule for the two aerostats and also provide for the record how the 24-hour a day, 7 day per week contractor operation requirement was arrived at.

ANSWER: Once funding is provided for the construction of Great Inagua (CARIBALL III) and the relocation of the Cape Canaveral aerostat, both systems are expected to be operational within twelve months of site selection.

The Coast Guard does not have sufficient personnel with the technical expertise to operate and maintain these complex systems. Contracting these services to companies that routinely provide that expertise was found to be more cost effective than developing an in-house, Coast Guard capability. Also by contracting, additional competition and jobs were provided to the private sector. Full time operation is necessary so that smugglers cannot slip through during a time when the aerostat is not operating.

SENATOR LAUTENBERG: On page 43, Coast Guard is requesting an additional $800,000 for follow-on funding for the 378-foot high endurance cutter post-FRAM follow-on program. However, on page 36 of the justification, Coast Guard is proposing a reduction of $253,000 for the FRAM program. How do these two items relate to each other?

ANSWER: The proposed reduction terminates the non-recurring component of start-up funding which was received as part of the follow-on funds for fiscal year 1989. The additional funds requested on page 43 will fund the program for fiscal year 1990 and include start-up funding and recurring funding. According to convention, the non-recurring start-up funds for a fiscal year are terminated during the following budget year.

SENATOR LAUTENBERG: In addition, there is an increase requested of $2,731,000 on page 43 for the 110-foot Island Class patrol boat, whereas on page 36, there is a decrease proposed of

$765,000 for the 110-foot Island Class patrol boat. How do these two requests relate to each other?

ANSWER: The proposed reduction terminates the non-recurring component of start-up funding which was received as part of the follow-on funds for fiscal year 1989. The additional funds requested on page 43 will fund the program for fiscal year 1990 and will include start-up funding and recurring funding. According to convention, the non-recurring start-up funds for a fiscal year are terminated during the following budget year.

SENATOR LAUTENBERG: Please provide for the record a detailed justification for the aircraft maintenance items identified on page 44 of the 1990 justification. There is a request of $19,546,000 for aircraft maintenance follow-on for the HU-25A and the HH-65A aircraft systems. The justification states that the costs of maintaining these systems is higher than anticipated. More repairs have been required than originally planned, using more spare parts than originally budgeted.

ANSWER: This is a recurring request to bring the level of parts support for our aircraft into line with present costs. The costs of maintaining our fleet of HU-25s and HH-65s is greater than the amount currently funded. The funds are required to purchase parts and engine overhauls over the whole range of aircraft maintenance.

$8.8 million of this request represents the cumulative effect of inflation increasing the cost of airframe parts beyond COLA adjustments. Without increased recurring funding we will be unable to meet either programmed aircraft hours or target aircraft availability. Cannibalization of parts from one aircraft to another will remain at an undesirably and uneconomically high rate as we attempt to maintain our critical search and rescue capability.

$10.7 million represents increased cost of engine maintenance. $4.7 million represents the increased cost of commercial overhaul of the ATF-3 engine. Because of the small engine population, the manufacturer is unable to achieve economies of scale in supporting this engine. $6 million recurring is needed to fund the increase in expected parts use on the HH-65's LTS-101 engine. This estimate assumes successful completion of the LTS-101 engine improvement program begun in FY 1989.

The following table provides a detailed breakdown of funding in the aircraft maintenance base for the HU-25 and HH-65, total funding needed to continue operations at present levels, and the difference between the two:

HU-25

ITEM	IN BASE	NEEDS	DIFFERENCE
AIRCRAFT OVERHAUL	$4,412,010	4,412,010	
SUPPORT GSE (Ground Support Equip.)	306,681	306,680	
AVIONICS TEST EQUIP	2,557,990	2,557,990	
GSE REPAIR	1,597,645	1,597,645	
ENGINE OVERHAUL	4,851,121	9,520,000	4,668,879 *
UNSCHEDULED MAINT	463,505	463,505	
AIRFRAME PARTS	8,430,215	12,945,000	4,514,785**
AVIONICS PARTS	4,739,600	4,739,600	

HH-65

AIRCRAFT OVERHAUL	11,325,000	11,325,000	
SUPPORT GSE	1,665,000	1,665,000	
AVIONICS TEST EQUIP	2,715,000	2,715,000	
GSE REPAIR	3,015,000	3,015,000	
ENGINE OVERHAUL(parts usage)	3,970,734	9,991,467	6,020,732 *
UNSCHEDULED MAINT	988,219	988,219	
AIRFRAME PARTS	16,978,313	21,320,000	4,341,688**
AVIONICS PARTS	8,536,781	8,536,781	
TOTAL			$19,546,084

* $10.7 million for increased cost of engine maintenance.
** $8.8 million for airframe parts.

SENATOR LAUTENBERG: How much was originally budgeted? How much was anticipated? How many more repairs are anticipated before these aircraft will work as planned? What is the current status of spares for these two aircraft? Are there FY 1991 and out-year costs for these two aircraft systems? What is the overall fleet projected needs for the HU-25A and the HH-65A, and how were those needs arrived at?

ANSWER: The aircraft maintenance account presently contains $27.4 million for the HU-25 and $49.2 million for the HH-65. Anticipated FY 1990 need is $36.5 million for the HU-25 and $59.6 million for the HH-65.

In addition to the $19.5 million recurring requested for HU-25 and HH-65 aircraft maintenance follow-on, the HU-25 needs $25.0 million to lay in spare parts for engine overhauls, $7.5 million for general airframe spares and an estimated $13.0 million ($1.6 million in FY 1990 and $11.4 million in the out-years) for an engine improvement program designed to increase overhaul and maintenance intervals, thus decreasing costs. The HH-65 requires an estimated $41.0 million for supplemental provisioning spares ($18.1 million in FY 1990 and the balance in the out-years) and $10.2 million to complete an engine improvement program. If the improvement program does not solve the design deficiencies of the HH-65 engine, re-engining the aircraft may have to be pursued. We are presently exploring a "proof of concept" to install the T-800 engine being developed by DOD. If re-engining is required, out-year requirements for the effort are estimated to exceed $100 million.

The overall fleet projected needs for the HU-25 and HH-65 are as mentioned above: HU-25 - $36.5 million recurring, and $45.5 million AC&I; HH-65 - $59.6 million recurring, and $51.2 million AC&I. The recurring costs are calculated using historical cost and usage data for a fleet of 80 HH-65s and 34 HU-25s at 800 programmed hours. FY 1990 maintenance cost per flight hour is $966 for the HH-65 and $1,264 for the HU-25.

SENATOR LAUTENBERG: On page 44, the Coast Guard is requesting operating and maintenance funding related to Acquisition, Construction and Improvement projects scheduled for completion by the second quarter of FY 1990. For each item listed on page 44 and 45, please provide a project description, including prior year funding and subsequent year funding both for construction and for

operation and maintenance, as well as an estimated date of completion.

ANSWER: The information follows:

PROJECT DESCRIPTION	PRIOR YR CONSTRUCT FUNDING ($000)	EST FOLLOW ON ($000)	EST COMPL DATE	
MAJOR AC&I PROJECTS:				
STA CRISFIELD - CONST NEW STATION	2,430	146	OCT 89	
STA ST CLAIR SHORES - REPLACE STATION	2,400	-9	MAY 90	(SAVINGS)
STA EAST FT BAKER - RELOCATE STATION	2,200	-29	SEP 89	(SAVINGS)
STA FREEPORT - RELOCATE STATION	3,515	38	AUG 90	
AS SAVANNAH - REHAB HANGAR	3,900	220	AUG 90	
STA MONTAUK - CONSTRUCT UPH	1,200	115	OCT 89	
TRACEN PETALUMA - CONSTRUCT UPH/GALLEY	11,800	1842	OCT 89	
MINOR AC&I PROJECTS:				
AS CAPE COD CONST INDOOR FIRING RNG	614	40	JUN 89	
SC NEW YORK - EXPAND COMMISSARY	490	16	JUL 90	
BASE MIAMI BEACH - CONST OPNS BLDG	570	11	JAN 90	
BASE MOBILE - CONST PATROL BOAT PIER	190	6	AUG 88	
STA MUSKEGON - CONST SAR FACILITY	381	23	SEP 89	
STA HOLLAND - CONST SAR FACILITY	395	13	JUL 90	
STA BUFFALO - IMPROVE MOORINGS	252	1	SEP 89	
AS BARBERS POINT - CONST GROUND EQUIPMENT BUILDING	591	31	SEP 89	
CG YARD - UPGRADE ELECTRICAL SHORETIES	339	7	JAN 89	
AS CAPE COD -CONST GROUND SUPPORT EQUIPMENT BUILDING	250	13	SEP 89	
MOORINGS HICKMAN - CONST PIER/TRAMWAY	550	17	AUG 90	
SARDET TOWNSEND INLET - CONST BULKHEAD	350	6	APR 90	
SC PORTSMOUTH - CONST SMLL ARMS RNGE	525	18	JAN 90	
SC PORTSMOUTH - CONST SEC & ORD FAC	500	31	MAR 90	
SC ELIZABETH CITY - UPGRADE AVIATION SUPPLY BUILDING	300	17	JUN 90	
BASE MOBILE - CONST RESERVE FACILITY	460	12	FEB 90	
AS DETROIT - CONST WICHSTNDR BERTHNG	525	40	JUL 90	
SC SAN PEDRO - CONST RESERVE FACILITY	460	17	NOV 89	
SC SEATTLE - CONST FLOATING BOATHOUSE	565	11	NOV 89	
BASE HONOLULU - CONST ARMORY MAGAZINES	475	29	JAN 90	
NAWILIWILI, HI - CONST SHORE SUPT FAC	300	18	FEB 90	
AS KODIAK - CONST FUEL TRUCK STORAGE FACILITY	590	30	MAY 90	
SUBTOTAL		$2,730		
PERSONNEL COST FOR STA CRISFIELD		$ 328		
TOTAL OE FOLLOW-ON		$3,05		

Increased follow-on cost reflects updated information

SENATOR LAUTENBERG: These are expected to be completed by the 2nd quarter of FY 1990. Are there others that would be completed in the 3rd quarter of FY 1990 for which construction follow-on funds were not requested?

ANSWER: Due to the time lapse between budget formulation and budget execution, and the scheduling uncertainties inherent in the construction process, the 2ND quarter of a given fiscal year is used to estimate the projects that will most likely require follow-on resources or will offer up savings. The list presented shows the projects which should be completed throughout FY 90 and the required additional resources or savings associated with those projects. Due to the realities of construction scheduling, deletions or additions to this list will be made.

SENATOR LAUTENBERG. Beginning on page 46 of the justification, the Coast Guard has requested increases totaling $12,445,000 for a category entitled "increase or restore operation capability." For each of these items, please provide a summary of funds in the base for FY 1990, against which the increases to the base can be compared.

ANSWER.

ITEM	TITLE	FY90 REQUEST	
a.	Restore Shipboard Helicopter Operational Readiness	$426,000	
b.	Occupational Health Support	$411,000	(New Start)
c.	Distributed Computing System Follow-on Support	$1,232,000	
d.	Secure C3 Equipment Follow-on Support	$1,700,000	(New Start)
e.	Intelligence Operations	$322,000	
f.	Joint Maritime Information Element (JMIE) System Support	$354,000	(New Start)
g.	Environmental Compliance	$3,000,000	
h.	Vessel Identification System	$5,000,000	(New Start)

For "Distributed Computing System Follow-on Support" we currently have $830,000 in the Operating Expenses (OE) base that was provided in FY 1988. This request will provide additional funds for the operation and maintenance of the Coast Guard Distributed Computing System (DCS) whose hardware has been procured with AC&I funds.

Under the category of "Environmental Compliance", $8.526 million is in the OE appropriation base. This base is comprised of: $576,000 for the disposal, transportation and storage of hazardous waste, $3.276 million for Underground Storage Tank (UST) leak detection and clean-up, $674,000 groundwater purging at Support Center Elizabeth City, and $4.0 million for expansion of our Underground Storage Tank monitoring activities, and Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and Superfund Amendments and Reauthorization Act (SARA) site identification and cleanup.

The remaining projects listed above do not have a base since they consist of new initiatives in the OE appropriation or are part of larger program funding bases where the personnel and equipment perform a wide variety of missions. For instance, new initiatives include:

"Restore Shipboard Helicopter Operational Readiness" will primarily benefit the Search and Rescue, and Enforcement of Laws and Treaties programs through increasing the effectiveness of shipboard-helicopter operations by bringing the shipboard-helicopter community in compliance with current Coast Guard and Navy directives.

"Occupational Health Support" request is for equipment, laboratory testing and support for the personnel that we have re-programmed internally from other sources to implement an occupational health/industrial hygiene program for our Marine Safety personnel. This initiative will become part of the health services support program.

"Secure C3 Equipment Follow-on Support" is required to maintain, repair, and replace secure command, control and communications

equipment acquired in prior years via the AC&I appropriation and will be part of the Command, Control and Communications support program.

"Joint Maritime Information Element (JMIE) System Support will provide funds for the Coast Guard share of operating and maintenance costs for a consortium of federal agencies establishing a computerized intelligence data network.

"Vessel Identification System" is required under P.L. 100-710 which mandates the establishment of a centralized, computerized vessel identification system to house information for law enforcement and other purposes related to the ownership of documented, numbered and titled vessels. The funds requested are for a requirements analysis, examination of alternatives and an outline plan for implementation.

The remaining initiative is part of a larger program funding base where the personnel and equipment perform a wide variety of missions. "Intelligence Operations" will primarily benefit the Enforcement of Laws and Treaties program by providing personnel to operate new, classified intelligence collection programs.

SENATOR LAUTENBERG: On page 47, the Coast Guard is requesting a $1,232,000 increase for the distributed computing system follow - on support. For each of the following five categories, please specify the amount of funds requested in 1990, and include a justification for each: (1) hardware and software maintenance; (2) system operators; (3) system management services; (4) training; and (5) communications.

ANSWER: These are a breakdown of the amounts requested for an additional eight DCS systems along with justification for each by category.

(1) Hardware and software maintenance.

(a) Hardware maintenance: Estimates based on current contract prices. Funds are required to provide for repair, replacement, and preventive maintenance for all hardware sytems on a monthly basis. Funding in this category is also directed toward the purchase of hardware system upgrades such as disk drives, graphics modules, enhanced video monitors, etc. as required to take advantage of new software and to meet expanded user demands. Lifecycle hardware replacement costs have also been included in this category.

o Recurring hardware maintenance	$188,000
o Lifecycle replacement	55,000
TOTAL	$243,000

(b) Software maintenance: Funding for software maintenance is required to support the modification and enhancement of DCS applications software in response to new user requirements and change mandated by legislation actions. Funding in this category is also directed to the purchase of commercial software licenses and update support agreements.

o DCS Software Support	$125,000
o User Interface Licenses	6,300
TOTAL	$131,300

(2) System Operators: Based on funding of eight additional District Office, MLC and Headquarters contract personnel. System operators will be required to provide system administration and network management support. They will be responsible for loading of software, system configuration, troubleshooting, system backup, electronic mail administration, network and system performance monitoring, and user assistance.

TOTAL	$352,100

(3) Systems Management Services: Funds are required for the contract development of system documentation and management procedures, printing and distribution of procedures and associated travel and general DCS support and supplies. Estimates based on additional eight systems.

o System Documentation/Management Procedures	$200,000
o Supplies	30,000
o General DCS Support and associated travel based to each of the eight sites	33,600
TOTAL	$263,600

(4) Training: Provide training for 18 system managers and associated travel and general system requirements training for each DCS site personnel.

o System Managers and associated travel	$ 54,000
o General System Training for DCS site personnel	30,000
TOTAL	$ 84,000

(5) Telecommunications Costs: Development of a charge back billing system and local area network (LAN) software package and associated DCS communications costs (estimated):

o Charge Back Billing System Software:	$ 80,000
o Local Area Network Security Software:	46,000
o Miscellaneous Telecommunications Costs:	32,000
TOTAL	$158,000

GRAND TOTAL.....$1,232,000

SENATOR LAUTENBERG: On page 47, the Coast Guard is proposing an increase of $1,700,000 to secure the C-3 equipment follow-on support. Follow-on funding is requested, according to the justification, to maintain, repair, and replace secure command, control and communications equipment acquired in prior years. Please provide a list of such equipment for the record.

ANSWER: The secure C-3 equipments that will be supported with funds from this request are secure HF communications equipment (PARKHILL), secure UHF communications equipment (VINSON), VHF-FM digital encryption standard (DES) equipment for HH-65 helicopters, cryptographic equipment (KG-84 and KW/7-46), satellite communications (SATCOM) terminals, and secure telephone units (STU-III).

SENATOR LAUTENBERG: On page 48, Coast Guard is requesting an increase of $354,000 for the joint maritime information element system support. What is in the base for this program at the current time? Why is an increase needed? By what process did the Coast Guard agree to act as the executive agency for the project? Where is space currently provided? How much space will be provided at the new operations center in West Virginia when the Coast Guard occupies that space? Are these costs fully funded?

ANSWER: There is presently no Coast Guard base for the Joint Maritime Information Element (JMIE) system. Funding is currently provided from within the Navy General Defense Intelligence Program (GDIP) budget. The exact amounts are classified and can be obtained from Navy GDIP staff. This funding is scheduled to expire at attainment of Full Operational Capability in December 1990. In FY90, Coast Guard requests $354,000 for JMIE start-up costs, with $172,000 planned thereafter for annual operating costs.

JMIE will be operated by a consortium of member agencies. The Coast Guard expects to assume the role of Executive Agent for JMIE and will administer the system. Each consortium member will be expected to contribute their share of funds to operate the system. The funds requested in FY 1990 represent the Coast Guard's fair share of start-up, operating and JMIE terminal acquisition funding needed.

No formal designation of Executive Agent has yet been made. However, because the Coast Guard will be the major beneficiary of the JMIE data base, we have proposed to the Intelligence Community staff that the Coast Guard assume executive agency responsibility for the JMIE system.

The JMIE computer system is currently housed at the Coast Guard's Operations Computer Center on Governor's Island, New York.

Of the 30,000 square feet available at the new operations computer center in West Virginia, 1400 square feet will be designated for JMIE use.

The costs are not fully funded. The $354,000 requested will fund the start-up costs for JMIE in FY90. Funding levels and budgetary resources to continue operation and maintenance of JMIE are the subject of ongoing discussions between the Coast Guard and the Intelligence Community Staff.

SENATOR LAUTENBERG: On page 48 of the justification, the Coast Guard is also requesting $3,000,000 for environmental compliance activities. Please provide for the record a five year funding history for the environmental compliance activities, including a list by project and funding for activities included in these five years.

ANSWER: Operating Expenses (OE) funding for environmental compliance activities were received in the following years for the following projects:

FY 89	$ 4,000,000	($1 million CERCLA/SARA Third Party Site) ($3 million Underground Storage Tank (UST) Removal/Replacement Cleanup Program)
FY 88	$ 3,300,000	(UST Removal/Replacement/Cleanup Program)
FY 87	$ 674,000	(Support Center Elizabeth City)
FY 86	$ 625,000	(Air Station Traverse City Admin)
FY 85	$ 500,000	(Hazardous Waste Disposal/Testing/Training)
FY 84	$ 500,000	(PCB Disposal/Retrofitting)
FY 83	$ 544,000	(Aids to Navigation Battery Disposal)

SENATOR LAUTENBERG: On page 48 of the justification indicates that tank removal and replacement projects costing less than $150,000 would be supported through this program. However on page 58 of the justification, it indicates that AC&I projects are those where estimated costs are $200,000 or more. Why the discrepancy between these dollar amounts.

ANSWER: The $150,000 is the old AC&I threshold limit, and $200,000 is the new AC&I threshold limit.

SENATOR LAUTENBERG: On page 49 of the justification, the Coast Guard indicates a need for $5,000,000 for the vessel identification system required by Public Law 100-710. Is all of the $5,000,000 needed for a new start? Please identify individual program cost elements which make up the $5,000,000. What will the total cost be? Is any of this money included in the base at this time? Should this be a new item, or should this be an expansion of existing programs?

ANSWER: The Coast Guard currently has no information system capable of satisfying the requirements of the Public Law 100-710. The $5,000,000 expenditure will be preparatory to contracting for either the acquisition of a new system or enhancement of an existing one. To determine which of these approaches would be more cost effective, the Coast Guard has contracted with GSA's Federal Systems Integration and Management Center (FEDSIM). FEDSIM's analysis will estimate the total costs of each approach and identify the most cost effective way to satisfy the requirements of the law. Although FEDSIM's analysis has not year been completed, the expenditures planned for FY90 are preparatory in nature and would be necessary whether a new system is developed or an existing system is enhanced. None of the required funds are currently in our base. The cost elements were estimated as follows:

Coast Guard FTE costs.	$ 430,000
Travel costs	85,000
Contract for FEDSIM assistance	375,000
FEDSIM contract for general system design.	100,000
FEDSIM contract for vessel documentation detailed requirements analysis	300,000
FEDSIM contract for vessel identification detailed requirements analysis.	500,000
Contract to develop and demonstrate prototypical system	645,000
Prepare request for procurement.	110,000
Prepare evaluation criteria.	55,000

Contract to digitize legal instruments for vessel documentation ecumbrances. .	2,400,000
Total	$5,000,000

SENATOR LAUTENBERG: On page 50, the Coast Guard requested an increase of $1,600,000 for the buoy replacement program. How much is currently in the base for this program? Is this $1,600,000 for material or for contract labor, or for finished buoys or such items as lenses, batteries, solar panels, etc?

ANSWER: The total base for maintaining all navigation equipment, including structure and buoy replacement, is $13.7 million. Maintenance costs, including expensive chain replacement, averages $10 million annually, leaving $3.7 million for buoy replacements. Annual buoy replacement costs for the smaller inland river buoys average $1.7 million due to high losses associated with river level fluctuations and heavy barge traffic. The remaining $2 million is insufficient to buy enough annual replacements for the Coast Guards 8,000 buoys ($66 million replacement value) which have an average service life of 15-20 years. Spares have been used up and some buoys in use are past their service life. Approximately 15% of our buoys were built in the 1940's and 1950's and are facing block obsolescence and failure. The additional funds will be used to purchase finished buoys from commercial contractors.

SENATOR LAUTENBERG: On page 50, the Coast Guard justification lists a budget increase of $2,370,000 for LORAN equipment replacement. Please provide for the record a list of what equipment will be replaced, the identified maintenance savings, and indicate whether or not the $2,370,000 is net of maintenance savings or other savings, or is a gross amount.

ANSWER: The following Loran-C equipment is either no longer supportable or economical to support and will be replaced with the FY-1990 funding requested.

1. Plotter (HP-9862A)
2. Tailbiter (AN/FPN-64)
3. Pulse generator (AN/FPN-60)
4. Uninterruptible power supply (ELGAR UPS-501)
5. Solid state transmitter modifications (SSX Signal Distribution Amplifier modifications)
6. Teletypewriters (MOD-40 TTY)

These elements are important parts of the system that generates and controls the Loran-C navigation signal. Replacement of this equipment is essential for continuous Loran-C operations. These components require replacement primarily because they are no longer supported by the manufacturer. Their replacement will allow the Coast Guard to more efficiently provide Loran-C coverage to a growing user community without the requirement for additional resources. Further, equipment replacement will avoid the extraordinary and unbudgeted expenses associated with repair of unsupported equipment. Since these benefits are not readily

measurable, and since the extraordinary maintenance costs associated with supporting this equipment were not budgeted, the amount requested has not been netted of savings; it is a gross amount.

SENATOR LAUTENBERG: On page 51, the Coast Guard justification indicates a need for an increase of $7,500,000 for HU-25 aircraft spare parts. How does the Coast Guard currently estimate spare requirements? How were they estimated for this aircraft system? Why is there a shortfall at this point?

ANSWER: Sparing levels are suggested by sophisticated sparing models for the aircraft which are based on programmed flight hours, target availability, and parts reliability. Initial provisioning is only as accurate as the estimates used as inputs to the algorithms to calculate provisioning levels. The estimates are refined with time and aircraft usage. The spares provisioning base for the HU-25 is smaller than required because the rate of removal and local repair has exceeded what has proven to be an overly optimistic expected repair rate. Additional nonrecurring funds are needed to bring the sparing levels up to the appropriate levels for our actual experienced parts removal rates. Proper sparing levels allow for more economical operation by providing for optimum use of economical reorder points and field level supply to meet demand.

The sparing shortfall for the HU-25 was first documented in FY84 for a FY86 budget request. $12M was appropriated in FY86 for phase I of the sparing shortfall reduction plan, however, contracting problems delayed obligation of these funds and precluded the CG from asking for funding for phase II until now. Contracting problems associated with the HU-25 are now resolved and we are ready to execute phase II of this sparing shortfall reduction plan.

SENATOR LAUTENBERG: The Coast Guard, also on page 51, indicates a need for an increase of $4,500,000 for the maintenance and rehabilitation of shore facilities. What is currently in the base for this activity? Is this a cyclical effort? Who manages the funds and selects which projects would get rehabilitation and maintenance during the year? Please provide a five year funding history on this, indicating which facilities have received funding and a list projecting which facilities would receive funding in FY 1990 if the Committee were to provide the requested increase of $4,500,000. Does the Coast Guard have a priority system for selecting such projects? Please include a copy for the record.

ANSWER: The funding base for maintenance and rehabilitation of shore facilities and fixed aids to navigation Coast Guard-wide is $73,800,000. A five year history of the funding base follows:

YR	FUNDING (FY88 $)
85	53,700,000
86	55,000,000
87	64,900,000
88	45,700,000
89	73,800,000

Funding for this program is not cyclical. Changes in the level of the funding base result from Congressional budget actions and Coast Guard internal reprogramming.

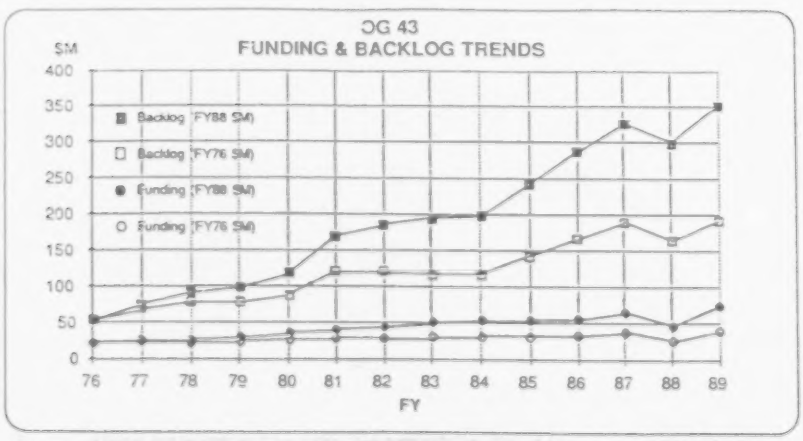
Shore facilities have been deteriorating more rapidly than we can repair them, due to insufficient funding both in the AC&I program for replacement facilities and the shore maintenance and rehabilitation program. The backlog of projects is growing as indicated below. It now consists of over 5,000 projects at an estimated cost of more than $350 million. In 1988 the project backlog experienced a slight drop. This reduction was caused by a combination of two factors. Reorganization of the Coast Guard's support function in 1987/1988 and a reduction in the Congressional funding support. These factors resulted in a delay in the administrative process which identifies backlog projects. The backlog total for 1989 indicates a recovery of those projects that were not documented in 1988.

YR	PROJECT BACKLOG (FY88 $)
85	242,000,000
86	286,200,000
87	325,800,000
88	298,700,000
89	350,123,000

The shore maintenance funds are distributed to regional support organizations. These organizations manage the funds and execute a prioritized list of projects. Distribution of the funds is based on an algorithm which considers such factors as physical size of shore plant, need as determined from the size of the field organization's project backlog and the ability of the regional support organization to effectively expend the funds provided.

District commands prioritize the list of backlog projects for the field units within their districts. A regional project execution plan is then prepared from the consolidated district project priority lists. This procedure insures that only the highest priority projects for the region are accomplished within the overall funding level provided. Individual shore facilities are not guaranteed an annual level of funding to accomplish their individual backlog projects under these procedures.

COAST GUARD CIVIL ENGINEERING



CIVIL ENGINEERING FUNDING & BACKLOG TRENDS
ALL VALUES IN MILLIONS (SM)

YR	BACKLOG (FY76 $)	FUNDING (FY76 $)	BACKLOG (FY88 $)	FUNDING (FY88 $)
76	53.1	22.4	53.1	22.4
77	68.1	23.1	73.8	25.0
78	77.7	22.4	91.3	26.3
79	77.2	23.7	98.5	30.3
80	87.7	26.4	118.0	35.6
81	120.2	28.2	169.9	39.9
82	120.3	28.1	185.1	43.3
83	117.8	30.2	194.4	49.8
84	116.7	30.8	197.6	52.2
85	142.3	31.5	242.4	53.7
86	166.5	32.0	286.2	55.0
87	189.9	37.8	325.8	64.9
88	163.8	25.1	298.7	45.7 (a)
89	192.0	40.5	350.1	73.8

(a) Does not include funding for aids to navigation programs

A summary of the distribution of the shore maintenance and rehabilitation and fixed aids to navigation funds by facilities types for FY 1989 and FY 1990 follows:

FY89 SHORE MAINTENANCE AND REHABILITATION AND FIXED AIDS TO NAVIGATION FUNDS DISTRIBUTION BY FACILITY TYPE
(Dollars in Thousands)

FACILITY TYPE	FY89 $	PERCENT OF TOTAL
OPERATIONAL & TRAINING	8,028	10.88
FIXED AIDS TO NAVIGATION	5,416	7.34
MAINTENANCE & PRODUCTION	3,010	4.08
RESEARCH, DEVELOPMENT, TEST AND EVALUATION	0	0.00
SUPPLY	22,209	30.10
HOSPITAL/MEDICAL	561	0.76
ADMINISTRATIVE	10,656	14.44
HOUSING & COMMUNITY	14,374	19.48
UTILITIES AND GROUND IMPROVEMENTS	6,420	8.70
LAND & SITE IMPROVEMENTS	3,126	4.22
TOTAL	73,800	100.00

PROJECTED FY90 SHORE MAINTENANCE AND REHABILITATION AND FIXED AIDS TO NAVIGATION FUNDS DISTRIBUTION BY FACILITY TYPE
(Dollars in Thousands)

FACILITY TYPE	BACKLOG	PERCENT OF TOTAL	FY90 ESTIMATE
OPERATIONAL & TRAINING	99,648	28.44	22,206
FIXED AIDS TO NAVIGATION	14,737	4.21	3,287
MAINTENANCE & PRODUCTION	12,254	3.50	2,734
RESEARCH, DEVELOPMENT, TEST AND EVALUATION	490	0.14	110

SUPPLY	15,756	4.50	3,725
HOSPITAL/MEDICAL	4,797	1.37	1,070
ADMINISTRATIVE	25,209	7.20	5,627
HOUSING & COMMUNITY	121,038	34.59	27,008
UTILITIES AND GROUND IMPROVEMENTS	39,354	11.24	8,777
LAND & SITE IMPROVEMENTS	16,841	4.81	3,756
TOTAL	350,123	100.00	78,300

Senator Lautenberg: On page 52, the Coast Guard justification indicates a need for increased funding of $584,000 for day care center management. Please provide for the record a list of existing day care facilities, including staffing and funding and the source of funding, and indicate how this $584,000 will be distributed across the existing system. In addition, please identify funding shortfalls having to do with day care center management. For example, is there currently a backlog of requests to place eligible children in day care centers operated by the Coast Guard, and if so, what is the extent of that list?

Answer: Currently all day care management positions and caregiver staff at the Coast Guard's existing child development centers are funded by non-appropriated funds (Morale, Welfare and Recreation (MW&R) funding), including all user fees collected from Coast Guard parents/guardians using the centers. In addition, fund-raising events held at some center locations provide limited financial support for playground equipment, child development equipment, etc. This current funding scheme strains the Coast Guard's limited MW&R funding and does not provide for the level of recruiting, hiring and retention of qualified professionals needed to provide trained leadership to the caregiver staff. Professional staffing, at increased grade levels funded outside of the MW&R account, is needed to mitigate these problems.

The Coast Guard presently operates child development centers at seven locations and plans to provide services at three additional locations. The funds requested will fund existing and new program management and center director/assistant director personnel as well as the Headquarters child development center coordinator. All caregiver salaries will continue to be paid by MW&R funds.

There are over 100 children on waiting lists at the existing centers. Since these centers close their waiting lists after reaching the maximum number that can be enrolled over the next six months, the waiting lists do not reflect the true demand for child care services at these Coast Guard facilities. In addition, identified needs for the child care centers under development at Support Center Alameda, the Coast Guard Academy, and Base Honolulu that would serve an additional 325 eligible children are proposed.

EXISTING CHILD DEVELOPMENT CENTERS

UNIT/CENTER	EXISTING STAFF/ COST	PROPOSED STAFF/ COST
Air Station	UA-7/$25,800	GS-9/$33,200
Cape Cod	UA-5/$20,800	GS-7/$27,700
	25 Caregivers/$190,000	25 Caregivers
Support Center	UA-7/$25,000	GS-9/$33,200
New York	UA-5/$20,800	GS-7/$27,700
	25 Caregivers/$120,000	25 Caregivers

UNIT/CENTER	EXISTING STAFF/ COST	PROPOSED STAFF/ COST
Training Center Cape May	UA-5/$20,800 7 Caregivers/$21,000	GS-7/$27,700 20 Caregivers
Base San Juan	PS-3/$11,100* 7 Caregivers/$8,000*	GS-7/$27,700 7 Caregivers
Air Station Boringuen	UA-5/$8,700* 12 Caregivers/$34,900	GS-7/$27,700 12 Caregivers
Training Center Petaluma	UA-7/$25,000 9 Caregivers/$43,900	GS-7/$27,700 GS-5/$22,600 9 Caregivers
Support Center Kodiak	UA-7/$31,900 UA-5/$26,000 26 Caregivers/$153,000	GS-9/$33,200 GS-7/$27,700 26 Caregivers
Child Care Program Manager/Headquarters	UA-11/$40,600	GS-12/$47,700
CHILD CARE CENTERS UNDER DEVELOPMENT		
Support Center Alameda	Under Development FY 1990 Opening	GS-7/$27,700 GS-5/$22,600 20 Caregivers
Coast Guard Academy	Under Development FY 1990 Opening	GS-9/$33,200 GS-7/$27,700 20 Caregivers
Base Honolulu	Under Development FY 1990 Opening	GS-7/$27,700 GS-5/$22,600
		STAFF COSTS $525,300
		**OTHER COSTS + 58,700
		TOTAL COST $584,000

* Part-time employee

** These are primarily one-time costs associated with upgrading and staffing existing facilities, and opening and staffing new facilities

SENATOR LAUTENBERG: On page 53 of the justification, the Coast Guard indicates a need for an additional 15 civilian positions (and 15 civilian FTEs) to operate the aircraft engine test facility in Elizabeth City, North Carolina. The justification reads in part, "Funding for the additional positions is available from maintenance accounts which pay for industrial positions directly related to aircraft repair." Please provide for the record a list of all activities in the Coast Guard funded from project funds, as contrasted to having an individual appropriation for a facility or an activity. For example, is the Coast Guard Yard funded in a similar manner?

ANSWER: The Coast Guard Yard, Curtis Bay, MD (54 military, 248 Civilian) and Aircraft Repair and Supply Center, Elizabeth City, NC

(23 Military, 647 Civilian) are the only Coast Guard units that pay employees involved in industrial activities from project funds.

SENATOR LAUTENBERG: On page 54, the Coast Guard indicates a need for a FY 1991 operating expense request of $2,328,500,000 for the continuation of programs initiated in prior years and some follow-on for new facilities expected to become operational during FY 1991. Please provide for the record a list of facilities included in the 1990 budget for which new funding is required which will have an FY 1991 budget impact.

ANSWER: Of the Shore Facilities portion of the FY 1990 AC&I budget, only the projects listed below have corresponding Operating Expenses (OE) follow-on items listed in the FY 1991 budget. Other major system acquisitions for FY 1990 have follow-on beyond FY 1991.

- MINOR AC&I SHORE CONSTRUCTION PROJECTS

- WATERWAYS AIDS TO NAVIGATION PROJECTS

- MAJOR AC&I SHORE CONSTRUCTION PROJECTS:
  Southeast U.S. (SEUS) Air Interdiction Shore Facilities
  Seattle, WA - Pier 35 Construction
  Cape May, NJ - Beach Erosion Control
  Palm Beach, FL - Construct New Station Lake Worth Inlet
  Rodanthe, NC - Replace Station Oregon Inlet
  Southport, NC - Rebuild Station Oak Island
  East Tawas, MI - Rebuild Station East Tawas

SENATOR LAUTENBERG: On page 58 of the justification the Coast Guard indicates that a number of icebreakers have been decommissioned between FY 1987 and FY 1990. What were the savings from these decommissionings? How have those savings been used?

ANSWER: Between FY 1987 and FY 1989, the icebreakers GLACIER, WESTWIND and NORTHWIND have been decommissioned. The CGC GLACIER was decommissioned in FY 1987 and the Coast Guard Operating Expenses budget base was reduced by 225 military FTP and a total of $8.4 million. The CGC Westwind was decommissioned in FY 1988 and the CGC NORTHWIND early in FY 1989 and each provided annualized recurring operating and maintenance savings of $2.0 million for a total of $4.0 million. These funds were part of the annualized reduction in the Coast Guard budget base as a result of the cut in the Coast Guard budget in FY 1988.

The military FTP's associated with the WESTWIND and NORTHWIND (234) were used to offset the cut of 791 military FTP taken by the Coast Guard as a result of our efforts to cope with the budget shortfall of FY 1988.

Due to the age of the WESTWIND and NORTHWIND, we estimated that keeping these vessels on active service would have required significant additional maintenance funds. For the NORTHWIND this would have meant $9.5 million and an eighteen month yard availability and for the GLACIER between $22-34 million. Decommissioning these vessels avoided these extraordinary repairs saving the Coast Guard between $32-45 million.

SENATOR LAUTENBERG. For the AC&I account beginning on page 62 of the justification please identify all new starts and the FY 1990 and out-year costs. Also, please list all items that are related to health and safety. In addition, for new aircraft or new vessels or

new facilities, is the Coast Guard required to do a life cycle cost analysis or an economic benefit analysis, and if so, for each item listed, please provide for the record an executive summary of those cost studies.

Answer: The following table lists the Coast Guard's FY 1990 AC&I new starts items:

PROJECT TITLE	FY 1990 COST ($000)	OUTYEAR COST (AC&I) ($000)
Replacement Cutter Boats	2,600	10,200
Polar Class Reliability Improvement	1,300	19,600
HH-65A Short Range Recovery (SRR) Helicopter Supplemental Spares	18,100	22,900
HU-25 Medium Range Search (MRS) Law Enforcement Sensors	8,100	4,000
Talon System for Shipboard Helicopter Tiedown - PH I	7,100	16,100
HU-25 Medium Range Search (MRS) Aircraft Engine Improvements	1,600	16,400
HU-25 Aircraft Spare Parts Shortfall	25,000	0000
Distributed Computing System	1,900	0000
Establish SARSAT Local User Terminals (LUTS)	2,600	0000
Global Positioning System (GPS) Installation - PH I	1,600	10,900
Establish Portable Intelligence Collection System	700	0000
Elizabeth City, NC - Support Center Clinic Replacement	3,200	0000
Kodiak, Ak - Support Center Fuel Farm Containment Construction	1,900	0000
Petaluma, CA - Construct Replacement Water Pipeline	2,400	0000
Cape May, NJ - Beach Erosion Control	3,400	0000
Palm Beach, FL - Construct New Station Lake Worth Inlet	3,200	0000
Rodanthe, NC - Replace Station Oregan Inlet	3,600	0000
Southport, NC - Rebuild Station Oak Island	3,000	0000
Greenville, MS - Moorings Relocation	2,200	0000
East Tawas, MI - Rebuild Station	2,200	1,200

Health and Safety Related AC&I Projects

Motor Lifeboat (MLB) Replacement Project (SAR)
HH-60J Medium Range Recovery (MRR) Helicopter Replacement Program (+Simulator) (FLIGHT SAFETY AND SAR)
HH-65A Engine Availability Improvement Phase II (FLIGHT SAFETY)
Talon System For Shipboard Helicopter Tiedown - Phase I (FLIGHT SAFETY)
Establish SARSAT Local User Terminals (LUTS) (SAR)
Underground Storage Tank (UST) Cleanup Program (HEALTH)
Elizabeth City, NC - Support Center Clinic Replacement (HEALTH)

Kodiak, AK - Support Center Fuel Farm Containment Construction (HEALTH)
Petaluma, CA - Construct Replacement Water Line for TRACEN (HEALTH)
Cape May, NJ - Beach Erosion Control (SAFETY, BASE ERODING)
Ketchikan, AK - Base Renovation Phase II (SAFETY, BASE FALLING DOWN)
Rodanthe, NC - Replace Station Oregon Inlet (SAR, BASE WASHED AWAY)
Greenville, MS - Moorings Relocation (CREW SAFETY, CURRENT MOORINGS FLOOD ANNUALLY)
Waterways Aids to Navigation Projects (VESSEL SAFETY)

Enclosed is an example of a Planning Proposal Report for a shore facility relocation and a Resource Change Proposal for an equipment acquisition. These examples demonstrate the rigorous evaluation all of our AC&I proposals must survive before funding is sought.

[CLERK'S NOTE: The Planning Proposal Report and Resource Change Proposal will not be included in the hearing but are available for review in the subcommittee files.]

SENATOR LAUTENBERG: For each item listed on pages 62-64, please provide a list of obligation and installation dates by quarter for FY 1990.

ANSWER: The obligation and installation dates are based on the best information available at this time but may change because of unforeseen problems associated with contracting and the complexity of work required in a majority of these projects. Table follows:

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FY 1990 Acquisition, Construction, and Improvement
(Dollars in thousands)

	FY 1990 QUARTERLY OBLIGATIONS PLAN				INSTALLATION DATES			
	1ST QTR	2ND QTR	3RD QTR	4TH QTR	1ST QTR	2ND QTR	3RD QTR	4TH QTR
ACQUIRE VESSELS AND EQUIPMENT:								
1. REPLACEMENT POLAR ICEBREAKER ACQUISITION				244,000	OPERATIONAL IN 1995.			
2. MOTOR LIFE BOAT (MLB) REPLACEMENT PROJECT				5,800	VARIOUS - PRE-PRODUCTION 5 BOATS.			
3. BUOY TENDER (WLB) CAPABILITIES REPLACEMENT			3,200		VARIOUS - MULTIPLE DELIVERIES.			
4. REPLACEMENT BOATS FOR CUTTERS			2,600		DELIVERY OF 150 BOATS (30/YR FOR 5 YEARS).			
5. COMPLETE 2ND DISTRICT BARGE REPLACEMENT PROJECT	1,100							FY90
REPAIR, RENOVATE OR IMPROVE EXISTING VESSELS AND SMALL BOATS:								
1. 378' HIGH ENDURANCE CUTTER (WHEC) FLEET RENOVATION AND MODERNIZATION (FRAM)	34,000	29,000	19,000	15,000	ONGOING PROJECT.			
2. 210' MEDIUM ENDURANCE CUTTER (WHEC) MAJOR MAINTEANE AVAILABILITY (MMA)		8,000			ONGOING PROJECT.			
3. 378' HIGH ENDURANCE CUTTER (WHEC) WEAPONS SYSTEM MODERNIZATION		5,000		5,000	FY91 DALLAS	FY90 HAMILTON		FY90 SHERMAN
4. SERVICE LIFE EXTENSION PROJECT (SLEP)	3,200				ONGOING PROJECT.			
5. POLAR CLASS ICEBREAKER RELIABILITY IMPROVEMENT PROJECT			1,300		DESIGN WORK.			
SUBTOTAL VESSELS	38,300	42,000	26,100	269,800				

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FY 1990 Acquisition, Construction, and Improvement
(Dollars in thousands)

	FY 1990 QUARTERLY OBLIGATIONS PLAN				INSTALLATION DATES			
	1ST QTR	2ND QTR	3RD QTR	4TH QTR	1ST QTR	2ND QTR	3RD QTR	4TH QTR
ACQUIRE NEW AIRCRAFT AND INCREASE AVIATION CAPABILITY:								
1. HH-60 MEDIUM RANGE RECOVERY (MRR) HELICOPTER REPLACEMENT PROGRAM (+SIMULATOR)	132,000				ONGOING NAVY PROJECT.			
2. HH-65 SHORT RANGE RECOVERY (SRR) HELICOPTER - SUPPLEMENTAL SPARES PROVISIONING	18,100				SPARE PARTS FOR OVERHAUL STOCK.			
3. HH-65 ENGINE AVAILABILITY IMPROVEMENT - PHASE II			10,200		IMPROVEMENTS MADE AS ENGINES CYCLE THROUGH OVERHAUL.			
4. HU-25 MEDIUM RANGE SEARCH (MRS) AIRCRAFT LAW ENFORCEMENT SENSORS			4,000	4,100	BASED ON CONTRACT NEGOTIATIONS.			
5. TALON SYSTEM FOR SHIPBOARD HELICOPTER TIEDOWN - PHASE II		7,100			ONGOING NAVY CONTRACT, 2ND QTR FY91 THROUGH FY93.			
6. HU-25 MEDIUM RANGE SEARCH (MRS) AIRCRAFT ENGINE IMPROVEMENTS		1,600			IMPROVEMENTS MADE AS ENGINES CYCLE THROUGH OVERHAUL.			
7. HU-25 AIRCRAFT SPARE PARTS SHORTFALL			10,000	15,000	SPARE PARTS FOR OVERHAUL STOCK.			
SUBTOTAL AIRCRAFT	150,100	8,700	24,200	19,100				

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FY 1990 Acquisition, Construction, and Improvement
(Dollars in thousands)

	FY 1990 QUARTERLY OBLIGATIONS PLAN				INSTALLATION DATES			
	1ST QTR	2ND QTR	3RD QTR	4TH QTR	1ST QTR	2ND QTR	3RD QTR	4TH QTR
COMMAND, CONTROL AND COMMUNICATIONS AND RELATED SYSTEMS								
1. DISTRIBUTED COMPUTING SYSTEN - PHASE II			1,900		MULTIPLE SITES THROUGHOUT YEAR.			
2. ESTABLISH SARSAT LOCAL USER TERMINALS (LUTS)			2,600		(MULTPLE SITES)		FY90	FY90
3. GLOBAL POSITIONING SYSTEM (GPS) INSTALLATION - PHASE I			1,600		BASED ON CONTRACT NEGOTIATIONS.			
4. HC-130 FORWARD LOOKING AIRBORNE RADAR (FLAR) - PHASE VII				4,900	PENDING U.S. NAVY PROCUREMENT.			
5. REPLACE AIRCRAFT REPAIR AND SUPPLY CENTER (AR&SC) COMPUTER - PHASE II	500		1,000		NEGOTIATING FINAL INSTALLATION.			
6. ESTABLISH PORTABLE INTELLIGENCE COLLECTION SYSTEM			700					FY90
SUBTOTAL COMMAND, CONTROL AND COMMUNICATIONS AND RELATED SYSTEMS	500	0	7,800	4,900				

DEPARTMENT OF TRANSPORTATION
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FY 1990 Acquisition, Construction, and Improvement
(Dollars in thousands)

	FY 1990 QUARTERLY OBLIGATIONS PLAN				INSTALLATION DATES			
	1ST QTR	2ND QTR	3RD QTR	4TH QTR	1ST QTR	2ND QTR	3RD QTR	4TH QTR
SHORE FACILITIES AND AIDS TO NAVIGATION FACILITIES:								
1. MINOR AC&I SHORE CONSTRUCTION PROJECTS	1,000	1,500	2,600	3,000	MULTIPLE PROJECTS AND COMPLETIONS.			
2. UNDERGROUND STORAGE TANK (UST) CLEANUP PROGRAM	250	250	250	250	(ONGOING PROGRAM WITH MULTIPLE SITES AND OBLIGATION DATES).			
3. SOUTHEAST U.S. (SEUS) AIR INTERDICTION SHORE FACILITIES - PHASE II				5,100	(PROJECT AND SCHEDULE UNDER DEVELOPMENT ESTIMATE PLAN).			
4. SEATTLE, WA - SUPPORT CENTER RENOVATION - PIER 35 CONSTRUCTION - PHASE II			1,200				FY91	
5. ELIZABETH CITY, NC - SUPPORT CENTER CLINIC REPLACEMENT				3,200	FY92			
6. KODIAK, AK - SUPPORT CENTER FUEL FARM CONTAINMENT CONSTRUCTION			1,900		FY91			
7. PETALUMA, CA - CONSTRUCT REPLACEMENT WATER LINE FOR TRAINING CENTER			2,400					FY91
8. CAPE MAY, NJ - BEACH EROSION CONTROL	3,400				*** TRANSFER TO ARMY COE.			
9. PUBLIC FAMILY QUARTERS				7,600	EST DATE, PLAN UNDER REVIEW.			
10. KETCHIKAN, AK - BASE RENOVATION - PHASE II		4,900						FY91
11. PALM BEACH, FL - CONSTRUCT NEW STATION LAKE WORTH INLET				3,200	FY92			

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FY 1990 Acquisition, Construction, and Improvement
(Dollars in thousands)

	FY 1990 QUARTERLY OBLIGATIONS PLAN				INSTALLATION DATES			
	1ST QTR	2ND QTR	3RD QTR	4TH QTR	1ST QTR	2ND QTR	3RD QTR	4TH QTR
SHORE FACILITIES AND AIDS TO NAVIGATION FACILITIES CONTINUED:								
12. RODANTHE, NC - REPLACE STATION OREGON INLET			3,600				FY91	
13. SOUTHPORT, NC - REBUILD STATION OAK ISLAND				3,000	FY92			
14. GREENVILLE, MS - MOORING RELOCATION				2,200	FY92			
15. EAST TAWAS MI - REBUILD STATION			2,200		FY92			
16. WATERWAYS AIDS-TO-NAVIGATION PROJECTS	1,000	1,500	2,000	2,200	MULTIPLE PROJECTS OBLIGATED AND COMPLETED AT VARIOUS TIMES.			
SUBTOTAL SHORE FACILITIES AND AIDS TO NAVIGATION	5,650	8,150	16,150	29,750				
PERSONNEL, SURVEY AND DESIGN, AND RELATED COSTS:								
1. PERSONNEL AND RELATED COSTS	6,550	6,550	6,550	6,550	NOT APPLICABLE.			
2. SURVEY AND DESIGN OF VARIOUS PROJECTS	300	500	2,500	1,600	NOT APPLICABLE.			
SUBTOTAL MISCELLANEOUS	6,850	7,050	9,050	8,150				
TOTAL FY 1990 AC&I REQUEST	201,400	65,900	83,300	331,700	TOTAL $ 682,300			

NOTE: (1) MAJOR CONTRACTING EFFORTS ARE NOT INITIATED UNTIL PROJECT FUNDS ARE APPROPRIATED. THIS, ALONG WITH FEDERAL ACQUISITION TIME REQUIREMENTS, PRECLUDES AWARD EARLIER THAN THE 4TH QUARTER IN MANY OF THESE PROJECTS.

(2) ALL QUARTERLY OBLIGATION PLANS INDICATE FULL PROJECT AWARD DURING QUARTER WHEN MAJOR CONTRACT IS PLANNED FOR AWARD.

SENATOR LAUTENBERG: Does the Coast Guard have a priority list for shore personnel support facilities, and shore maintenance and rehabilitation facilities, and personnel housing requirements? If so, please provide such priority lists for the record.

ANSWER. The Coast Guard does not maintain a priority list for shore support, maintenance and rehabilitation and housing requirements in any single fiscal year. The Coast Guard has a shore facility AC&I backlog in excess of $500 million dollars. The projects submitted for construction funding in FY 1990 are those intended to solve the most severe problems currently faced. Each of these projects has been reviewed in detail and approved, in many cases for a number of years. The fact that the projects are shown in the FY 1990 AC&I request indicates that these are the most pressing shore problems facing the Coast Guard and are ready to be accomplished.

SENATOR LAUTENBERG: For the record please provide an explanation in narrative form of the manner in which the Coast Guard accomplishes its survey, planning and design work for projects included in the following categories: (1) vessels; (2) aircraft; (3) administrative headquarters; (4) shore facilities or aids to navigation; (5) personnel housing, day care centers and other facilities.

ANSWER: Vessel survey and design work is accomplished in four phases:

--Conceptual design involves studies to define a range of capable hull forms and propulsion plants with risk and preliminary cost analysis to compare alternatives. This stage is approximately one percent of the design effort.

--Preliminary design focuses on the most promising option developed during the conceptual design phase to validate feasibility and determine final key dimensions and capabilities which would not be expected to change through ship acquisition. This stage provides budget level cost estimates and is approximately seven percent of design effort.

--Contract design expands on the preliminary design with detailed specifications and a limited number of drawings which enable a shipbuilder to prepare a responsive bid for design and construction. The end product is a procurement package suitable for use in a fixed price bid and award transaction. This stage is approximately 12 percent of the design effort.

--Detailed design identifies specific equipment items for acquisition. Drawings and instructions for fabrication and installation of all materials and equipment necessary to construct the ship are prepared. It includes all the integration engineering and defines all testing required for each system of the ship. This stage is normally accomplished by the shipbuilder or his agent and represents approximately 80 percent of the design effort.

--The extent to which the Coast Guard becomes involved with in-house vessel design for a major system acquisition is one of the determinations to be made in the project Acquisition Paper (AP). Each project is handled separately with approval of the AP by the Transportation Systems Acquisition Review Council (TSARC) prior to commencing any significant in-house design work. Only in extraordinary cases does the in-house design work extend beyond the preliminary design phase.

Aircraft: There is no in-house design for aircraft. All procurements start with a concept of requirements, a market survey to identify available technology and then a comparison of capabilities.

Shore (including administrative headquarters, housing, day care centers and other facilities): Shore survey and design work is accomplished in the same four phases as vessel survey and design work. Typically, the Coast Guard accomplishes the conceptual design phase in-house; an architectural engineering firm is then hired to complete the preliminary design phase; and the contract and detailed design phases are then completed after the contract has been let. A highly structured project development process is in place involving the field units, the two Areas, two Maintenance and Logistics Commands, six Shore Maintenance Detachments, two Facilities Design and Construction Centers and the ten Districts. These include AC&I Data Sheets, Planning Proposals (PP), Project Proposal Reports (PPR), Structural Alteration Request (STRUCTALTS), Conceptual Design, Design Development Submittals, and completed Invitation for Bid Packages.

SENATOR LAUTENBERG: At the appropriation hearing, the Coast Guard and the General Accounting Office both testified on the request for the polar icebreaker acquisition budgeted (on page 65) in FY 1990 for $244,000,000. If the Committee were to consider funding a 6-foot continuous icebreaking capable-polar icebreaker in FY 1990 without the capability for scientific support, in other words, a stripped-down version of a polar-class icebreaker that would be capable in terms of continuous icebreaking capability of serving as a third replacement or back-up icebreaker, what would the Coast Guard estimate the cost of such acquisition to be? Also, please provide a summary of pros and cons of such an alternative.

ANSWER: Without preparing a new design the best estimate of the cost of an icebreaker capable of breaking 6 feet of ice continuously at 3 knots is the estimate of the cost to build a new Polar Class icebreaker. Current estimated contract award cost for nstruction of a Polar Class icebreaker including necessary system spares is $271,000,000 in FY 1990 dollars. Total program cost would be $352,000,000 in then year dollars. This estimate was developed using the Coast Guard ship construction estimating model which was also used for the PIR cost estimate. This estimate includes only the originally provided Polar Class scientific capability which is not very extensive.

A "stripped down" Polar Class icebreaker that met today's needs could not be made by simply "dusting off" the Polar Class design. It would be necessary to thoroughly review the Polar Class design to insure: the design meets current mission needs and requirements; the current construction standards are invoked; improvements and modifications to the original design are incorporated; modification based on experience with the ship, propellers, and power plant are incorporated; and the latest electronics suite is included. This review and modification process would delay the acquisition of an icebreaker. It is estimated that a decision now to build a Polar Class icebreaker rather than the current Polar Icebreaker Replacement would delay the acquisition by at least 18 months and possibly as much as 4 years.

Acquiring a "stripped-down" version of the Polar Class would not be responsive to carefully researched and validated user

requirements. The current Polar Icebreaker Replacement design reflects the minimum necessary capabilities which have been carefully identified with the users and screened for affordability and practicality. For example, the icebreaking capability is a compromise between capability and economy which considers access to ice-covered areas for the purpose of research as well as other missions. The four-and-a half foot icebreaking capability will provide the science community access to about seventy percent of the ice covered areas of the world.

A significant cost in polar operations is represented by the transits to and from the operating area. Using a dedicated icebreaker to escort a dedicated research vessel doubles the transit cost. Without dispute, Coast Guard operated icebreakers will be required for the major logistics missions of McMurdo and Thule. They must incur the transit costs. Using multipurpose icebreakers is the most cost effective way to provide icebreaker support in the heavy ice areas of the polar regions.

The Coast Guard's Polar Class icebreakers have been criticized by the science community for lack of science support capability. The Coast Guard is currently upgrading those facilities. The science community has expressed complete support for that initiative.

In summary, a review of new information and events since completion of PIRS essentially validates the PIRS conclusion that at least four Coast Guard icebreakers are needed to meet long term U.S. requirements. All Coast Guard icebreakers require science capability, and an extensive process of consultation and review has produced the necessary level of science capability for the replacement icebreaker design.

SENATOR LAUTENBERG: What are the current Coast Guard projected inventory needs for the following classes of vessels: (1) 110-foot Island Class; (2) the motor lifeboat; (3) the buoy tender; (4) replacement shipboard boats; (5) new barges of the type budgeted for the second district; (6) the 378-foot high endurance cutters; (7) the 210-foot medium endurance cutters; (8) other vessels not listed above. What is this projected inventory based on?

ANSWER: Projected needs for fiscal year 1990 and current inventory levels are provided below. Projected requirements are based on a consolidation of individual Operating and Support Program cutter requirements over a five yar planning horizon. These calculations consider the projected cutter fleets' capacity to supply service to meet the planned program demands and the efficiencies possible with simultaneous mission accomplishment. These projected requirements undergo frequent review. The Coast Guard has recently begun cutter baseline study to update certain vessel requirements.

CUTTERS:

Class	Projected Need	Current Inventory
High Endurance Cutters	13	12
Medium Endurance Cutters	32	33
Patrol Boats (includes 110ft Island Class)	96	94

MOTOR LIFEBOAT: The projected inventory for motor lifeboats (MLB) is 117. This number is based upon an updated analysis of boat requirements that considers the number of motor lifeboats in the current inventory that will be replaced; the places where one, new motor lifeboat will be able to replace both a 41-foot utility boat (UTB) and an old motor lifeboat. The overall effect of this analysis is to take our current inventory of 205 UTBs and 105 MLBs, to an inventory of 147 UTBs and 117 new MLBs, a total reduction of 46 hulls.

REPLACEMENT SHIPBOARD BOATS: The project to replace shipboard boats calls for 150 rigid-hulled inflatable boats over a five year acquisition period. The number is based upon the need to replace 48 solid-hulled motor surf boats and 27 motor cargo boats in service that are used aboard major cutters, plus replacement of 75 early rigid-hulled inflatable boats, all of which are reaching the end of their life-cycle.

POLAR ICEBREAKERS: Requirements for polar icebreakers have been addressed in at least six major studies since 1973. The most recent and most thorough was the 1984 Polar Icebreaker Requirements Study (PIRS). Undertaken at the direction of the Office of Management and Budget (OMB), PIRS participants included the Navy, the Maritime Administration (MARAD), the National Oceanic and Atmospheric Administration (NOAA), the National Science Foundation (NSF), the Office of the Secretary of Transportation (OST), OMB, and the Coast Guard. A review of new information and events since completion of PIRS essentially validates the PIRS conclusion that at least four Coast Guard icebreakers are needed to meet long term U.S. requirements. At present the Coast Guard operates two polar icebreakers, the POLAR STAR and POLAR SEA. Funds are being requested in the President's FY90 budget for a third polar icebreaker. The Coast Guard intends to request funding for a fourth polar icebreaker in a future budget.

ICEBREAKING TUGS: Both the current and projected inventory for the 140 foot Bay-class icebreaking tugs (WTGBs) is nine vessels. These nine WTGBs were built to replace the 14, thirty-plus year old, 110 foot icebreaking tugs on the Great Lakes and East Coast, and the 125 foot training vessel CAYUHOGA. This projected inventory is based on current domestic icebreaking requirements which are not expected to significantly change. In addition to the five WTGBs on the Great Lakes, the 290 foot icebreaker MACKINAW was recently placed back in commission to provide heavy icebreaking capability in the event of a severe winter on the Great Lakes.

ATON SERVICING VESSELS: The projected inventories for the below five categories of aids to navigation (ATON) servicing vessels are based on the fact that the Short Range Aids to Navigation (SRA) population (ie. buoys, lighthouses, etc.) has remained relatively constant over the past ten years and is not projected to change significantly.

BUOY TENDERS: The number of seagoing buoy tenders (WLBs) and coastal buoy tenders (WLMs) has been reduced from a total of 60 vessels in commission twenty years ago to a total of 39 vessels. The current fleet mix is 27 WLBs and 12 WLMs. The primary reason

for the reduction of the fleet size has been the improvement of technology (i.e. acetylene gas buoys to primary batteries to solarized buoys) and implementation of Booz-Allen Study recommendations (i.e. buoys to beacons where possible and formation of Aids to Navigation Teams - ANTs). However, 7 of the 12 WLMs are past the end of their service life, and, with the exception of 6 WLBs that recently went through Service Life Extension Program (SLEP), all the WLBs are at the end of their service lives. SLEP is considered a "stop gap" measure to keep the fleet running until replacement buoy tenders are delivered since the WLBs are approaching 50 years in age. An Office of Management and Budget (OMB) Circular A-109 acquisition project is underway to acquire replacements for the WLBs and WLMs. The number of replacement vessels that will be needed will depend on the design of the selected. If the design significantly exceeds the present buoy tender capabilities, fewer replacement vessels will be necessary.

RIVER TENDERS: Both the current and projected inventory for river buoy tenders (WLRs) is 18; two of which are being replaced by two new tenders scheduled to be delivered in the summer of 1989. River buoy tenders are vessels consisting of a tug pusher and a barge. New barges being constructed for the Second Coast Guard District river tenders are almost complete. The next to last barge is presently under construction and the request in the FY 90 budget is to complete the last of the needed eleven new barges for a total of 18. The basis for the replacement was the Ship's Structure and Machinery Evaluation Boards (SSMEB) which determined that the eleven oldest barges needed to be replaced.

INLAND BUOY TENDERS AND CONSTRUCTION TENDERS: There are currently a total of 22 inland construction tenders (WLICs) and inland buoy tenders (WLIs). These numbers are sufficient to meet the projected needs of the service in the 1990s.

DISTRICT NINE BARGES: A project to build two 120' Aids to Navigation barges for use in the Ninth District has been approved. Funds sufficient to build one barge were appropriated in FY89. Funding for the second will be included in a future budget. These barges will be limited to the protected and semi-protected waters of the Great Lakes. These barges were conceived as a productivity improvement to replace two 180' WLBs and at the same time improve the utilization of two of the existing Ninth District Icebreaking Tugs (WTGBs).

BUOY BOATS: There are 52 aids to navigation boats of over 40 feet in the inventory. Thirty of the 52 buoy boats are past the end of their useful lives. Approximately half of these older boats were built between 1966 and 1969 and the other half were built between 1954 and 1962. A 49 foot buoy boat has been designed as a replacement. The new boats are expected to have increased speed, better accommodations, supportability, and dependability. Based on these improved factors, fewer boats will be necessary to replace the thirty presently past their useful life. The Coast Guard intends to request funding for replacement buoy boats in a future budget.

SENATOR LAUTENBERG: Please provide for the record a list of Coast Guard recommended inventory levels for aircraft, including: (1) the HH-60; (2) the HH-65; (3) the HU-25; (4) the E-2C; (5) the C-130; and (6) other aircraft not listed above. What is the basis for such inventory levels?

ANSWER: A list of Coast Guard recommended inventory levels effective end of FY89 follows. It should be noted, however, that the numbers shown as projected and recommended inventory levels needs do not necessarily reflect approved budgetary levels. Furthermore, in a number of cases (e.g. the HU-25 and the HC-130), Coast Guard 5-year resource projections, because of other, higher priority needs, do not propose funding for additional units beyond the current inventory levels.

	HH-65A	HH-3	HH-60	HU-25	HC-130	E-2C	VC-4	VC-11
Required:	96	15	32	58	34	4	1	1

The basis for these inventory levels is the FY 1989-1993 Aviation Requirements document, modified to indicate the most current information. The document derives the proper mix of aircraft needed by the Coast Guard to provide the level of public service defined in the Program Descriptions. The analysis considers the projected aircraft fleet's capacity to supply service to meet the planned program demands, considering the efficiencies possible with simultaneous mission accomplishment and tradeoffs in time between multi-mission aircraft types.

SENATOR LAUTENBERG: For vessels and for aircraft, please provide a status report in terms of Coast Guard achievement of the various inventory levels listed above.

ANSWER:

AIRCRAFT:

	HH-65A	HH-3	HH-60J	HU-25	HC-130	E-2C	VC-4	VC-11
Available:	96	42	0	41	31	4	1	1

HH-60J requirements are currently being met by HH-3Fs. These HH-3Fs will be replaced by HH-60Js between March 1990 and August 1993.

CUTTERS:

Class	Current Inventory
High Endurance Cutters	12
Medium Endurance Cutters	33
Patrol Boats	94
(includes 110ft Island Class)	

MOTOR LIFEBOAT: The projected inventory for motor lifeboats (MLB) is 117. This number is based upon an updated analysis of boat requirements that considers the number of motor lifeboats in the current inventory that will be replaced; the places where one, new motor lifeboat will be able to replace both a 41-foot utility boat (UTB) and an old motor lifeboat. The overall effect of this analysis is to take our current inventory of 205 UTBs and 105 MLBs, to an inventory of 147 UTBs and 117 new MLBs, a total reduction of 46 hulls.

REPLACEMENT SHIPBOARD BOATS: The project to replace shipboard boats calls for 150 rigid-hulled inflatable boats over a five year acquisition period. The number is based upon the need to replace 48 solid-hulled motor surf boats and 27 motor cargo boats in service that are used aboard major cutters, plus replacement of 75 early rigid-hulled inflatable boats, all of which are reaching the end of their life-cycle.

POLAR ICEBREAKERS: At present the Coast Guard operates two polar icebreakers, the POLAR STAR and POLAR SEA. Funds are being requested in the President's FY90 budget for a third polar icebreaker. The Coast Guard intends to request funding for a fourth polar icebreaker in a future budget.

ICEBREAKING TUGS: Both the current and projected inventory for the 140 foot Bay-class icebreaking tugs (WTGBs) is nine vessels.

ATON SERVICING VESSELS: The projected inventories for the below five categories of aids to navigation (ATON) servicing vessels are based on the fact that the Short Range Aids to Navigation (SRA) population (ie. buoys, lighthouses, etc.) has remained relatively constant over the past ten years and is not projected to change significantly.

BUOY TENDERS: The number of seagoing buoy tenders (WLBs) and coastal buoy tenders (WLMs) is 39 vessels. The current fleet mix is 27 WLBs and 12 WLMs. The primary reason for the reduction of the fleet size has been the improvement of technology (i.e. acetylene gas buoys to primary batteries to solarized buoys) and implementation of Booz-Allen Study recommendations (i.e. buoys to beacons where possible and formation of Aids to Navigation Teams - ANTs). An Office of Management and Budget (OMB) Circular A-109 acquisition project is underway to acquire replacements for the WLBs and WLMs. The number of replacement vessels that will be needed will depend on the design of the selected. If the design significantly exceeds the present buoy tender capabilities, fewer replacement vessels will be necessary.

RIVER TENDERS: The current inventory for river buoy tenders (WLRs) is 18. River buoy tenders are vessels consisting of a tug pusher and a barge. New barges being constructed for the Second Coast Guard District river tenders are almost complete. The next to last barge is presently under construction and the request in the FY 90 budget is to complete the last of the needed eleven new barges for a total of 18.

INLAND BUOY TENDERS AND CONSTRUCTION TENDERS: There are currently a total of 22 inland construction tenders (WLICs) and inland buoy tenders (WLIs). These numbers are sufficient to meet the projected needs of the service in the 1990s.

DISTRICT NINE BARGES: A project to build two 120' Aids to Navigation barges for use in the Ninth District has been approved. Funds sufficient to build one barge were appropriated in FY89. Funding for the second will be included in a future budget. These barges will be limited to the protected and semi-protected waters of the Great Lakes. These barges were conceived as a productivity

improvement to replace two 180' WLBs and at the same time improve the utilization of two of the existing Ninth District Icebreaking Tugs (WTGBs).

BUOY BOATS: There are 52 aids to navigation boats of over 40 feet in the inventory.

SENATOR LAUTENBERG: On page 75 of the justification, the Coast Guard is proposing an FY 1990 budget request of $20,400,000 for the HH-60J flight simulator. Who else has a flight simulator of this type? What is the alternative cost of providing simulator training other than the Coast Guard buying one of its own? For what other aircraft does the Coast Guard have a simulator?

ANSWER: Both the Army and Navy operate H-60 flight simulators. The Coast Guard investigated the use of DOD simulators prior to its decision to obtain "in-house" capability. This analysis revealed that DOD simulators could not fulfill Coast Guard training requirements. Significant differences in aircraft configuration and the lack of night vision goggle capability, made these trainers unsuitable for the HH-60J training. Additionally, the Navy responded that our training requirements exceeded capacity of the existing fleet replacement squadrons. The Coast Guard presently operates flight simulators for the HH-3F and HH-65A helicopters and the HU-25 Falcon aircraft. The simulators are located at the Aviation Training Center, Mobile, Alabama.

SENATOR LAUTENBERG: What constitutes the need for the supplemental spares provisioning budget of $18,100,000 listed on page 76 of the justification? For the record, please provide an explanation of Coast Guard acquisition policies (separated into the various levels of details as appropriate), indicating how the Coast Guard determines whether to acquire complete systems versus partial systems. For example, does the Coast Guard always require a complete boat plus spares, or a complete helicopter plus spares, or a complete aircraft plus spares, or does it, at various times, require helicopters or boats or other fixed wing aircraft with spares to be acquired later.

ANSWER: It is the Coast Guard's practice to acquire complete systems. This includes the spares support required for the platform to meet operational commitments. Depending on project constraints (construction schedule, personnel resources, etc.), spares are either furnished by (1) the contractor constructing the ship, boat, or aircraft; (2) the Coast Guard through procurement from the Federal Supply System and/or actual manufacturers; (3) a combination of Contractor and Coast Guard.

SENATOR LAUTENBERG: On page 76, for instance, the justification states that the initial provisioning of spares for the HH-65 was 23.5 percent of the acquisition cost. What was the budget estimate for provisioning of those spares versus what was appropriated for those spares? What is the basis for the DOD standard of 30 percent for spares? How accurate has that standard been when subjected to tests over years?

ANSWER: Spares provisioning is not based upon a straight percentage of the basic equipment cost, but rather on sophisticated sparing models that incorporate factors such as programmed flight hours, target availability, lead time and repair time for parts,

Mean Time Between Failure (MTBF) and expected parts durability. The Coast Guard's initial estimate for sparing, based on a program cost of $433 milion, was $99.9 million or 23.5 percent of the acquisition cost and was based on the manufacturer's estimated MTBF and repair times. These spare parts estimates are refined as the aircraft system matures and actual MTBF and repair data become available. Our actual use and revised sparing levels, based on current data, indicate the need to increase sparing to 30% of the acquisition cost. This level coincides with the DOD standard which is a "rule-of-thumb" guideline developed over the years to provide a quick, simple estimate of acquisition costs. The comparison with the DOD guideline ensures that performance of this system is not out of line with DOD experience.

SENATOR LAUTENBERG: The Committee has, at times, been informed that it would be advantageous if the Coast Guard were to use the acquisition capabilities of DOD agencies for some of its military readiness components or for some of its major system acquisitions involving vessels, helicopters or fixed wing aircraft. What is the current Coast Guard policy regarding the use of non-Coast Guard acquisition personnel? What has the experience been in recent history? Please provide for the record a list of acquisitions accomplished through other than Coast Guard acquisition personnel, and an evaluation of those acquisitions. Which of the 1990 budgeted items will be acquired in this manner?

ANSWER: It is current Coast Guard policy to use the acquisition capabilities of DOD agencies whenever feasible. Experience in this area has been excellent and cost effective. We find it works best where we are jointly acquiring a system with DOD or where a DOD agency has temporary excess capacity. Acquisitions accomplished in this manner include Medium Range Recovery (MRR) Helicopters, Island Class Patrol Boats, Nightstalker (HU-25) Helicopter Conversions, Second Coast Guard District Pusher Barges, and 210' Cutter Midlife Maintenance. In FY90, the Navy will acquire for the Coast Guard the weapons system modernization hardware for the 378' high endurance cutters (WHEC). Also, Navy acquisition capabilities will continue to be used for the MRR acquisition.

SENATOR LAUTENBERG: The Coast Guard is proposing an increase of $7,100,000 on page 79 for a tie-down system for shipboard helicopters. What is the current arrangement now on flight deck equipped cutters for tying down helicopters? Is this the first request for funds of this activity? Will there be future year requests for funds for tying down the HH-65? How many cutters are flight deck equipped? How many need to be flight deck equipped? What is the basis or the estimate and how was the estimate computed?

ANSWER: The present system for tying down a helicopter on a Coast Guard Cutter involves primary and secondary tiedowns which are manually hooked on the helicopter by personnel onboard the cutter. All High Endurance Cutters, 270' and 210' Medium Endurance Cutters, and Polar Class Icebreakers are flight deck equipped and currently total 43 in number. The requirement for a flight deck on a cutter is identified during the earliest phases of the acquisition process and now, virtually all new medium endurance cutters are expected to be flight deck equipped.

$16.9 million was appropriated in fiscal year 1984. However, our initial procurement strategy had to be completely revised since

it did not comply with the more stringent requirements for competition in accordance with the new Federal Acquisition Regulations which went into effect in April 1985. In light of this, a major portion of the funding was redirected for fiscal year 1987 requirements in accordance with Congressional direction. $3.1 million was retained to fund engineering, sparing, hardware and operational evaluation of the first three helicopter systems and for installation of one ship grid.

A summary of planned obligations follows:

Obligated	FY87	$3,100,000
Planned	FY90	$7,100,000
	OUTYEARS	$16,100,000

SENATOR LAUTENBERG: On page 81, the Coast Guard is requesting $25,000.000 to provide an inventory of government furnished parts for overhaul and repair of the ATF-3 engine installed on the HU-25 Falcon Jet. Why was Garrett Turbine Engine Corporation the sole source for complete overhaul and repair of the HU-25 ATF-3 engine? Has the Coast Guard considered going back to the corporation (based on the unforeseen high costs to operate this engine) and attempting to shift some of the overhaul and repair of these engines to the prime contractor, and if not, why not?

ANSWER: Sole source for complete engine overhaul was necessary in this case because design data for the HU-25 fixed wing aircraft's ATF-3 engine remain proprietary to Garrett Turbine Engine Corporation. A Source Selection Board established at the Coast Guard's Aircraft Repair and Supply Center continues to research alternate sources for aircraft and engine parts and repairs.

The prime contractor for the HU-25, Falcon Jet Corporation, has no capability to overhaul or repair ATF-3 engines and would only have to subcontract with Garrett and pass on their 10-15% markup to the Coast Guard. Additionally, the unforeseen high cost to repair this engine is not due to operational problem, but rather, to a smaller quantity of engines in operation in the U.S. than was originally forecast. This precludes the economies of scale to produce and maintain very expensive exotic metal parts. The $25 million requested is for the Coast Guard to provide spare parts as Government Furnished Equipment (GFE) in order to ensure future capability of the contractor to repair this engine. Providing the parts as GFE will lower overhaul costs accordingly.

SENATOR LAUTENBERG: This acquisition is characterized as a one time ATF-3 parts stock to be used as an inventory for engine overhaul and repairs. How long will this one time acquisition be good for? What is the obligation rate of the funds included in this year's budget estimate?

ANSWER: This is a one time acquisition which will provide the initial parts pool for the life of the ATF-3 engine. As parts are drawn from the supply pool, replacements will be procured with our recurring operating expense funds, thus, a fresh supply of parts will continuously be available to prevent overhaul delays and to improve overall ATF-3 engine availability. At the end of the life of the ATF-3, replacement of parts used from this pool would be phased down to coincide with the end of program requirements. This parts pool is needed as soon as possible, therefore, obligation is expected during FY90. A complete inventory is required to provide the necessary parts to improve the overhaul rate of the ATF-3.

SENATOR LAUTENBERG: On page 83 of the justification, the Coast Guard is requesting an increase of $2,600,000 to establish local user terminals related to search and rescue satellite systems. How many are needed in total? How many are budgeted this year? Are all of the ones needed budgeted this year, and if not, why not? What is the overall status of implementation of these terminals?

ANSWER: The Search and Rescue Satellite-Aided Tracking (SARSAT) system needs a total of five local user terminals (LUTs) to provide coverage of the areas for which the United States has primary search and rescue responsibility. The Coast Guard requested funding for two LUTs in fiscal year 1990, which we need in Hawaii and Puerto Rico. They will provide new coverage for all but about 25 per cent of our area in the northern Pacific Ocean where large-area searches tend to be expensive and unsuccessful, and for the Caribbean area where there is a high density of search and rescue cases. Of the three existing stations, the Coast Guard operates one in Kodiak, Alaska, and one in Point Reyes, California. The Air Force operates the third at Scott Air Force Base, Illinois.

SENATOR LAUTENBERG: What geographical areas of the world would be covered by installation of the terminals budgeted, and what areas of the world would be left uncovered as a result of the 1990 budget not requesting installation and funding for the installation of all terminals required?

ANSWER: Installation of the budgeted terminal in Hawaii will provide coverage from the U. S. mainland to about 2,500 nautical miles west of Hawaii, roughly seventy-five per cent of the U. S. area of responsibility in the Pacific Ocean. The Puerto Rico local user terminal (LUT) will cover the Caribbean, the Southeastern United States, and the western North Atlantic. With the existing LUTs, along with the new Hawaii and Puerto Rico LUTs, only the western Pacific would not be covered by satellite reception capability.

SENATOR LAUTENBERG: According to the justification on page 83, approximately $1,550,000 cost avoidance would be attributable to the installation of these terminals. Is this offset in the 1990 budget, and if not, why not?

ANSWER: Local user terminals purchased with fiscal year 1990 funds are not targeted for operation until September 1990, the end of the fiscal year.
The cost avoidance figure represents ship and aircraft hours that will be available to fill short falls in the drug/law enforcement mission area.

SENATOR LAUTENBERG: Please provide for the record a five-year development history of the global positioning system. According to the justification, this is Phase I of a six-phase, six-year procurement. What is the basis for the estimate that the global positioning system will become fully operational in 1992?

ANSWER: The Department of Defense is developing GPS. They have assigned the U.S. Air Force as the executive agency. Defense Acquisition Board Phase IIIA decision occurred in 1984 and authorized Low Rate Initial Production. Phase IIIB decision for Full Rate Production is due June 1990. The integration in the HH-65A is providing technical data to DOD to support the Phase IIIB decision.

HH-65A integration started in 1985. The integration successfully completed detailed flight testing at the Naval Air Test Center in March 1989. All integration work including documentation will be completed in October 1989. The U.S. Air Force Joint Program Office for the GPS program estimates the GPS will become fully operational in 1992.

SENATOR LAUTENBERG: According to the justification on page 84, LORAN-C does not currently have the coverage needed to support operations in the Caribbean Sea and polar regions. Will that be corrected if the Committee provides the requested increase for LORAN-C operations? If not, why not?

ANSWER: The increase for LORAN-C operations is to conduct replacement programs for aging Loran transmitting and timing equipment. This is necessary to ensure continued operation of the existing LORAN-C system and will not provide new or additional coverage. There is no coverage in the Caribbean or polar regions. User need has been low in the caribbean and DoD has no requirement for LORAN coverage there. To provide coverage in the Caribbean Sea would require three new LORAN-C stations at approximately 10 million dollars each and international coordination. Polar coverage is not feasible for technical reasons. The Global Positioning System (GPS), scheduled for implementation in 1992, will cover both caribbean and polar regions.

SENATOR LAUTENBERG: Provide for the record the statutory citation and complete text and Coast Guard utilization of the DOD coastal defense augmentation account indicated on page 85 of the justification.

ANSWER: **Statutory Citations** - The Joint Resolution, Public Law 99-190, making further continuing appropriations for fiscal year 1986, and for other purposes, appropriated to the Department of Defense Coastal Defense Augmentation Account appropriation $235,000,000. The FY 1987 Continuing Appropriations, Public Law 99-591, appropriated to the Department of Defense Coastal Defense Augmentation Account appropriation $200,000,000.

Complete Text FY 1986 Language - For the augmentation of the United States Coast Guard inventories to meet national security requirements, $235,000,000, to remain available until expended: Provided, that these funds shall be for the procurement by the Department of Defense of vessels, aircraft, and equipment and for modernization of existing Coast Guard assets, to be made available to the Coast Guard for operation and maintenance.

Coast Guard Utilization of FY 1986 Funds for the HC-130 Forward Looking Airborne Radar (FLAR) Program - As indicated on page 85, the Coast Guard received $41.4 million of these funds of which $37.6 million has been obligated for 20 radar systems and associated components, auxiliary equipment, and initial support. The remaining balance of $3.8 million is committed with anticipated obligation in 1st quarter FY 1990 for additional contractor support.

Complete Text FY 1987 Language - For the augmentation of United States Coast Guard inventories to meet national security requirements; $235,000,000, to remain available until expended: Provided, that these funds shall be for the procurement by the Department of Defense of vessels, aircraft, and equipment and for

modernization of existing Coast Guard assets, which assets are to be made available to the Coast Guard for operation and maintenance.

Coast Guard Utilization of FY 1986 Funds for the FIAR Program - As indicated on page 85, the Coast Guard received $9.1 million which was obligated for 6 radar systems and associated components, auxiliary equipment, and support.

SENATOR LAUTENBERG: On page 86 of the justification, Coast Guard indicates the need for an additional $1,500,000 in FY 1990 to replace the mainframe computer system in Elizabeth City, North Carolina at the Aircraft Repair and Supply Center (AR&SC). Can this activity be funded from project funds instead of a direct appropriation?

ANSWER: AR&SC is funded mainly by direct appropriation, unlike the Coast Guard Yard which is largely financed through a revolving fund. Since AR&SC does not charge back costs to the field for items such as this, the only way this activity can be funded is by direct appropriation. This request is the second year of a three year plan for funding the replacement to the Aircraft Repair and Supply Center's Burroughs mainframe computer. The total project is projected to cost $8.7 million. Of this, $5.7 million was appropriated in FY89 with an expected obligation in fourth quarter of FY89. The FY90 funding request of $1.5 million is needed to proceed with the three year plan to continue with the software development. It cannot be taken from the FY89 project funds and is needed to achieve the full benefit of the new system.

SENATOR LAUTENBERG: On page 88, the Coast Guard is requesting $8,100,000 for a list of various minor AC&I shore construction projects. Please provide for the record a list of projects included in that budget category.

ANSWER: FY90 Minor AC&I Projects will be selected from the following list.

PROJECT

GROUP LONG ISLAND SOUND BOAT MAINTENANCE FACILITY
STATION NEW HAVEN SUPPORT BUILDING
SUPRTCEN PORTSMOUTH COVERED BOAT HAULOUT
TRACEN CAPE MAY CHILD CARE CENTER
AIRSTA BORINQUEN FUEL SYSTEM MODIFICATION
AIRSTA BORINQUEN HANGAR MODIFICATION
STATION MARATHON SHOP BUILDING
STATION PORT ISABEL WATERFRONT RESTORATION
AIRSTA DETROIT FACILITY EXPANSION
MORRO BAY WPB PIERSIDE FACILITY
STATION DEPOE BAY FACILITY UPGRADE
BASE KETCHIKAN BUOY SHOP UPGRADE
SUPRTCEN KODIAK CUTTER STORAGE BUILDING
INFORMATION SYSTEMS CENTER MANAGEMENT BUILDING
EECEN WILDWOOD COMPUTER SYSTEMS BUILDING
TRACEN PETALUMA UTILITIES UPGRADE
ATC MOBILE COMPOSITE REPAIR FACILITY

SENATOR LAUTENBERG: The Committee understands that the overall cost for any particular project is limited to $750,000. The Coast Guard also indicates on that page that the estimated cost over the

next four years for minor AC&I shore construction projects will be $48,000,000. Please provide for the record the basis for this estimate, including individual projects listed if the Coast Guard has them.

ANSWER: The estimate of $48,000,000 is based on Coast Guard planning figures, not approved budget estimates. It was developed from previous years' construction requests. Our historical data supports an annual projection of 18-25 projects worth $12,000,000 for the next four years. A detailed list is selected on an annual cycle, one year in advance of the available funding. Each annual list is developed separately based upon mission priority, available funding, and other selection criteria.

SENATOR LAUTENBERG: On Page 89, the Coast Guard is requesting an additional $1,000,000 for the underground storage tank cleanup program. This project is justified on the basis that the Coast Guard needs to replace leaking or obsolete underground storage tanks. Please provide a list of storage tanks which will be corrected through this program in FY 90.

ANSWER: There are approximately 1,000 underground storage tanks (UST's) Coast Guard wide. We are currently in the process of surveying these UST's to determine UST status (tank integrity and tightness) and develop a prioritized removal and replacement program based on this survey. Correction will be accomplished under our Operating Expense (OE) appropriation for those projects costing less than 200K.

Projects with cost greater than $200,000+ will be funded from the AC&I Appropriation. Site investigations at a number of CG installations including the CG Yard, MD; Station Niagara Falls, NY; Station Ashtabula, OH; and Station Burlington, VT indicate the potential for funding requirements in this range.

SENATOR LAUTENBERG: On page 92 of the justification, the Coast Guard indicates a need for $3,200,000 in FY 1990 to replace the Elizabeth City, North Carolina Clinic, and to build a new medical and dental clinic. The justification also indicates the future costs over the next four years for this facility will be $32,500,000. Please provide a detailed justification for the clinic, including an analysis of alternatives, and an estimate of these costs over the next four years.

ANSWER: The $32,500,000 in future year costs reflects the total costs of all AC&I projects currently planned for the entire Support Center Elizabeth City installation over the next four years, with the caveat that these projects have not been subject to rigorous budgetary review. These additional future costs "for this facility" are unrelated to the clinic replacement, which is a single-year FY 1990 construction project for $3,200,000. The OE follow-on funding increment related to annual maintenance of the new clinic is $113,000 in FY89 dollars and will be required in FY 1991.

The detailed justification document for the clinic, which provides alternatives and costs, is a 54 page document and will be provided to the Committee separately.

[CLERK'S NOTE: The Elizabeth City Clinic Replacement Budget Justification will not be included in the hearing but is available for review in the subcommittee files.]

SENATOR LAUTENBERG: On page 93, the Coast Guard estimates that the four-year costs for the Kodiak Island Support Center Fuel Farm in Alaska will total $66,300,000. Please provide for the record the out-year estimates in detail for this facility. Also provide for the record the Coast Guard-wide four-year estimated construction listing.

ANSWER: Based on Coast Guard planning figures, not approved budget estimates, the estimated four-year cost for the entire Kodiak Support Center facility is as follows:

PROJECT	COST ($000)
Fuel Farm Containment System	1,900
Recreation Center Phase I - Pool	4,200
Fire Station	4,200
Family Housing Phase IX	7,350
Nemetz Park Roads and Grounds	3,000
Nyman Peninsula Groundwater Remediation	8,000
Recreation Center Phase II - Gym Rehab	3,400
Improve Domestic Water System	1,900
Family Housing Phase X	7,350
Transition Quarters	7,500
Nyman Peninsula Roads and Grounds	1,900
Wastewater Treatment Plant	1,000
Public Works Center	4,000
Supply Center	9,400
Replace Community Center	1,200
TOTAL	66,300

The Coast Guard-wide four-year estimated construction listing is incorporated in the U.S. Coast Guard Capital Investment Projections 1990-1994.

FISCAL YEAR 1990 BUDGET ITEM NO	ACQUISITION, CONSTRUCTION, AND IMPROVEMENTS	
PROJECT TITLE: KODIAK, AK - SUPPORT CENTER FUEL FARM CONTAINMENT CONSTRUCTION	NEAREST CITY & CONGRESSIONAL DISTRICT: KODIAK, AK - 1ST	AMOUNT REQUESTED: $1,900,000

Reason for Request: To discontinue use of the two underground FS-6 tanks that are in violation of EPA requirements. To provide additional JP-5 fuel storage in order to consolidate use of one fuel type (JP-5) to meet all operational and fuel reserve requirements. To provide necessary monitoring and containment systems for the one new and two existing JP-5 above ground tanks.

Description of Problem or Need: The existing 1940 vintage FS-6 tanks, (two underground concrete (27,500 barrels ea.) and one above ground steel (55,000 barrels)), have no containment or monitoring systems. There are indications of FS-6 leakage on Hyman's Peninsula. The existing FS-6 fuel leakage and lack of containment and monitoring systems violate EPA regulations.

Description of Solution: Construct a new 40,000 barrel above ground steel JP-5 fuel tank with containment to supplement the two that already exist. Install remote monitoring system for all three JP-5 above ground steel tanks.

Benefits: This project will consolidate the fuel farm into an above ground, three tank, 120,000 barrel JP-5 facility that meets all required environmental regulations. It will allow improved fuel handling by eliminating FS-6 usage. The project reduces the potential of damaging spills and will ensure that adequate ready reserves of JP-5 fuel are available for Support Center Kodiak and DOD requirements.

IMPACTS ON OPERATIONS AND/OR MAINTENANCE STAFFING
(NON ACSI FUNDED)

	OFF	WRNT	ENL	CIV	TOTAL*
CURRENT	22	5	176	64	271*
PLANNED	NO CHANGE				

APPROPRIATION HISTORY

PROGRAM	YEAR	AMOUNT ($000)
Administrative Center	1985	10,000
Health Care Facility	1986	6,000
Lake Louise Housing	1988	10,400
Underground Storage Tank Cleanup	1988	1,000

SUMMARY ($000)

AMOUNT OF THIS REQUEST	1,900
ESTIMATED FUTURE COST NEXT 4 YEARS - THIS PROJECT	---
ESTIMATED FUTURE COST NEXT 4 YEARS - THIS FACILITY	66,300**

COST ESTIMATE OF WORK TO BE FUNDED THIS YEAR

ITEM NO.		MEASURE	QTY	ESTIMATED COST ($000)
1.	Sitework	LS	---	440
2.	Monitoring System	LS	---	180
3.	Steel Tank Installation	LS	---	1,290
		TOTAL		1,900

NOTES: *Operational staffing figures for Support Center only.
**This figure does not include projects for Air Station Kodiak or Communication Station Kodiak which are collocated at the Support Center.

DEPT OF TRANSP., USCG, CGHQ-4851 (REV. 6-84)
PREVIOUS EDITION IS OBSOLETE

SENATOR LAUTENBERG: On page 95 of the justification, the Coast Guard indicates a need for $3,400,000 to reimburse the Army Corps of Engineers for a protection dune along the Cape May, New Jersey training center's ocean front, and to relocate a storm sewer outfall. The justification also indicates an estimated four-year future cost for this facility of $15,400,000. Please provide for the record a list of the activities included in that $15,400,000, and which ones of those would be ready for funding in FY 1990. In addition, please provide a list of the estimated planning costs for each of those activities which could also be funded in FY 1990.

ANSWER: Below is a list of anticipated projects for the next four years at the Cape May training center based on Coast Guard planning figure, not approved budget estimates, with the associated costs for each project:

PROJECT	COST ($000)
New Recruit Barracks	6,300
Uniform Warehouse Expansion	1,300
Applied Training Facility	3,100
Permanent Detail BEQ	2,400
Training Field House	2,300
TOTAL	15,400

None of these projects will be ready for funding in FY90. Necessary planning costs are included in the Survey and Design line item.

SENATOR LAUTENBERG: The Committee has received comments from the public indicating opposition to the Coast Guard budgeted public family quarters construction project at Key West, Florida. Please provided for the record a complete set of correspondence between the Coast Guard and local government units in that area indicating support or opposition to the project. The Committee understands that the Coast Guard is currently using 270 units of Navy housing at Key West, whereas this project would only provide the replacement of 70 units for the Coast Guard. How does the Coast Guard intend to accommodate its staff in that situation?

ANSWER: Attached is the correspondence between the Coast Guard, Navy, and local government regarding expansion of military housing in Key West, FL. The Coast Guard has transferred funds to the Navy in support of this building effort to increase our share in the Navy's overall housing program in Key West, FL. Increased access to government housing is needed in this area due to the assignment of new Coast Guard cutters.

In the past, the Coast Guard has occupied as many as 210 Navy housing units in Key West. We now occupy only 120 units. In addition to the Navy housing, the Coast Guard currenly has 44 government leased units in Key West. Increased Navy presence and the full renovation of Navy housing has decreased the availability of these Navy units for Coast Guard personnel. The Coast Guard budgeted housing project will provide 160 new units on the Navy facility. This project, coupled with available Navy units and leased accommodations, will provide enough housing for the forseeable future.

[CLERK'S NOTE: The correspondence referred to in the first paragraph of this answer will not be included in the hearing but is available for review in the subcommittee files.]

SENATOR LAUTENBERG: On page 103 of the justification, the Coast Guard indicates the need for an additional $6,700,000 for the waterways aids to navigation projects, which are needed as a result of additional construction by the U. S. Army Corps of Engineers. Please provide for the record a list of individual projects which total to $6,700,000 and the list of projects included in the next 4-year projected costs of $23,500,000.

ANSWER: The following projects will be completed using the $6.7 million requested for FY90:

Chesapeake Bay, MD	$4,500,000
Norfolk Harbor and approaches	$500,000
Port Royal, FL	$125,000
Mississippi River Ranges	$45,000
Mobile, AL (Phase I)	$465,000
Freeport, TX	$445,000
Corpus Christi, TX	$405,000
Radar beacons	$215,000

The following projects are included in the 4-year projected cost of $23,500,000:

New York Harbor, NY	$1,400,000
Sandy Hook, NJ	$1,000,000
James River, VA	$800,000
Elizabeth River, VA	$330,000
Chester River, MD	$110,000
New Jersey Inracoastal Waterway	$220,000
Rappahannock Channel, MD	$3,000,000
St Marys Jetties, FL/GA	$1,750,000
Port Manatee, FL	$112,000
St Simons Sound, FL	$130,000
Charleston, FL	$30,000
Bayou La Batre, LA	$53,000
Saginaw Bay, MI	$1,500,000
Charleston, OR	$30,000
Greys Harbor, OR	$95,000
Mallaea, HI	$23,000
Agat, Guam	$184,000
Elk River, MD	$320,000
Gulfport MS	$38,000
Mobile, AL (Phase II)	$462,000
Sacramento River, CA	$100,000
Oakland, CA	$105,000
Los Angeles, CA	$140,000
Astoria, OR	$80,000
Lummi Bay, WA	$78,000
Puget Sound, WA	$20,000
Oak Harbor, WA	$48,000
Merizo, Guam	$160,000
Submission of projects as a result of unanticipated Corps of Engineers projects and analyses of waterways over 4 yrs	$8,000,000
Additional Operating Appropriation maintenance cost resulting from above projects	$3,200,000

SENATOR LAUTENBERG: For projects funded in the AC&I account, please indicate for the record for each project which year dollars the cost is developed in. For example, there is, on page 105, an indicated need for $4,900,000 for survey and design of various projects. On any of these projects for which funding is requested for FY 1990, do the Coast Guard cost estimates include funding in FY 1990 dollars, or do they include funding in the year dollars in which the planning and design work is complete?

ANSWER: These estimates are based on FY 1990 dollars.

SENATOR LAUTENBERG: In the alteration of bridges account on page 119, the Coast Guard indicates that the $2,300,000 requested in FY 1990 will do work on two bridges, and that in FY 1991, the work would cover a third bridge. Please provide for the record a five-year alteration of bridges priority list, so that the Committee can understand which other bridges the Coast Guard is considering altering or moving as a result of them being obstructions to navigation.

ANSWER: The five-year alteration plan of bridges according to priority is as follows:

1. FY 1990: Completion of alteration of the railroad bridge across the Willamette River at Portland, Oregon.

2. FY 1990: Commencement of alteration of the:

a. Railroad bridge across the Trent River at New Bern, North Carolina.

b. Railroad bridge across the Mississippi River at Hannibal, Missouri.

3. FY 1991: Commencement of alteration of the railroad bridge across the Pascagoula River at Pascagoula, Mississippi.

4. Complete the required studies to determine if the following bridges are obstructive to navigation within the meaning of the Truman-Hobbs Act:

a. FY 1990: Railroad/highway bridge across the Upper Mississippi River at Fort Madison, Iowa.

b. FY 1990: Railroad bridge across the Upper Mississippi River at Burlington, Iowa.

c. FY 1992: Railroad bridge across the Upper Mississippi River at Sabula, Iowa.

d. FY 1993: Railroad bridge across the Upper Mississippi River at Clinton, Iowa.

If bridges are found to be obstructive, commence the alteration process.

SENATOR LAUTENBERG: On page 130 of the justification, the Coast Guard indicates the need for $73,800,000 for necessary expenses for reserve training activities. What is the basis for the Coast Guard estimate that continuing training would increase $4,000,000 and that initial training would increase $2,100,000 from FY 1989 to date? In addition, does the Coast Guard contemplate use of reserve personnel to provide workload capability to meet current output estimates? If so, please describe. If not, why not?

ANSWER: The exhibit of Summary Explanation of Changes Requested for FY 1990 provided on page 137 of the justification provides a programmatic breakdown of the $6,800,000 FY 1990 Reserve Training Appropriation budget increment. The largest part of the continuing training program increase of $4,380,000 is the funding of the employer's share of the FICA tax on reserve drill pay

($2,200,000). The balance of the program increase represents the continuing training cost of the 850 additional Selected Reservists requested in the FY 1990 budget. The initial training program increase of $2,070,000 primarily represents the initial training cost of the 850 additional Selected Reservists. The Coast Guard Reserve provides trained units and qualified persons for active duty in the Coast Guard in time of war or national emergency and at other such times as the national security requires. In the course of training to meet these responsibilities, Reservists augment the active Coast Guard in performance of its peacetime missions during both normal and peak periods of operations as well as in times of domestic emergencies.

SENATOR LAUTENBERG: Does the Coast Guard reserve training account include full funding for the annualization for the 1989 pay increase? To what benefit will the increased mobilization force be placed in the short term, that is to say, there is a budget estimate of $3,612,000 to increase the mobilization force. Will this in any way be used to meet current workload needs?

ANSWER: In keeping with the government-wide policy for Non-Defense agencies, the Coast Guard Reserve Training Appropriation was required to absorb 3-quarters of the cost of FY 1989 pay raise, but was allowed to annualize the remaining quarter in 1990. The FY 1990 Reserve Training Appropriation budget requests $3,612,000 to increase the mobilization force by 850 Selected Reservists. The Coast Guard Reserve is not used to meet current active force workload needs. However, the primary method of training Reservists for mobilization is through the augmentation training program. Augmentation training is provided by active force personnel at active force units. As the result of performing regular weekend drills and annual training at active units, Reservists who become trained are avialable to assist the active force unit in the performance of its peacetime missions during both normal and peak periods of operations.

SENATOR LAUTENBERG: How long will it take for the Coast Guard to increase the selected reserve strength by 850 personnel? How was the estimated cost of $3,612,000 computed? Did that assume that 850 personnel would be on board as of the beginning of the year, or the middle of the year. Please provide for the record a detailed explanation of that cost estimate.

ANSWER: It will take the Coast Guard about ten months to increase the size of the Selected Reserve by 850 personnel. The 850 growth will be comprised of 85 officers, 460 personnel with prior active military service and 305 personnel with no prior military service. Prior service recruit accessions will occur somewhat evenly throughout the year as will new officer growth. The majority of the non-prior service recruit accessions will be high school students and recent graduates. These accessions will occur primarily in June and July of the year. The budget estimate of $3,612,000 assumes that officer and prior service personnel accessions will incur one-half year continuing training costs during FY 1990 and that the non-prior service accessions will incur full initial training costs but no continuing training costs during FY 1990. The FY 1990 budget request does not include funding for a FY 1990 pay increase. If the projected 3.6 percent military pay raise is absorbed by the Reserve Training account. Coast Guard would

accommodate the absorption by increasing the size of the Selected Reserve by 500 personnel rather than the requested 850. The $3,612,00 budget estimate was computed as follows:

Recruit Training	$1,686,000
Includes pay, allowances and benefits for 305 new reserve recruits, travel to/from home of record uniform outfitting cost, meals, and O & M cost at the training facilities.	
Uniform Outfitting	339,000
Cost of uniforms for 460 prior service recruits not attending recruit training and uniform allowance for 85 new officer accessions.	
Subtotal Initial Training Activities	2,025,000
Weekend Training Activities	1,193,000
Based on a 48 drill/year standard, these costs include full drill pay for 43 new officer accessions and 230 new prior service enlisted accessions, reserve unit O & M, drill meals, GI Bill benefits, employer FICA tax, other drill program support small arms training and medical care.	
Active Duty Training Activities	394,000
Based on a 13 active duty day/year standard, these cost include full pay and allowances for 43 new officer accessions and 230 new prior service enlisted accessions, employer FICA tax, travel and per diem, part time instructor/administrator trainors, supplemental readiness exercise costs, special active duty projects and active duty medical care.	
Subtotal Continuing Training Activities	1,587,000
Grand Total Cost for 850 Selected Reserve Growth	$3,612,000

SENATOR LAUTENBERG: On page 152, the Coast Guard indicates a need for an additional $150,000 for marine environmental response and chemical analysis research programs. What will be done (specifically) with this funding? According to the justification on page 152, this program was funded at a level of $600,000 in FY 1988, $490,000 in FY 1989, and the budget request is for $150,000 in FY 1990. In light of the recent oil spill accident in Prince William Sound, Alaska, would the Coast Guard like to reconsider its budget estimate, even though the budget estimate is specifically targeted to chemical responses?

ANSWER: The FY 1990 funding request will complete R&D chemical technology support for the Coast Guard's in-house abatement and underground storage tank cleanup programs. The decreasing funding requests for chemical research since FY 1988 indicate both a phasing out of hands-on chemistry R&D in the Coast Guard, and the successful hand-off of chemical response projects from R&D to the Operating Expense (OE) appropriation. No specific oil pollution R&D funding is included in the FY 1990 budget request, since evaluation of new oil pollution technology and equipment is now primarily conducted by our Headquarters and Strike Team personnel using Operating Expense

(OE) funds. However, with public concern for the environment on the upswing, particularily since the Valdez oil spill, the Coast Guard intends to take agressive action in developing new initiatives for oil and hazardous substance spill prevention and response, including a vigorous R&D effort. Projects appropriately identified as R&D in FY 1990 will be initally accomodated through the Select Project fund, or by reprogramming funds from lower priority projects.

SENATOR LAUTENBERG: How much is included in the budget estimate for research and development on ways to clean up oil spills? If none, would the Coast Guard like to reconsider the mix of programs included in its research, development, test and evaluation budget request to shift funds from other activities to this activity? What would the appropriate level be for a research effort in oil spill containment and clean-up efforts in the RDT&E appropriation account?

ANSWER: The Coast Guard R&D budget contains funding each year to support the marine environmental response mission area. Coast Guard R&D related to oil pollution cleanup was conducted extensively throughout the 1970's concurrent with the Coast Guard's Federal Water Pollution Control Act/Clean Water Act responsibilities. Since the mid 1980's, our R&D efforts have focused primarily on our more recent hazardous chemical response mission area and our in-house abatement program. No specific oil pollution R&D funding is included in the FY 1990 budget request, because evaluation of new oil pollution technology and equipment is now primarily conducted by our Headquarters and Strike Team personnel using Operating Expense (OE) funds. However, with public concern for the environment on the upswing, particularly since the Valdez oil spill, the Coast Guard intends to take aggressive action in developing new initiative for oil and hazardous substance spill prevention and response, including a vigorous R&D effort. Projects appropriately identified as R&D in FY 1990 will be initially accommodated through the Select Project fund, or by reprogramming funds from lower priority projects. We estimate that approximately $450K will be needed for oil pollution R&D funding in FY 90. FY 1991 projects will largely be an outgrowth of FY 1990 projects. Future budgets will contain appropriate OE and R&D requests to continue these efforts.

SENATOR LAUTENBERG: On page 157, the Coast Guard indicates a need for a $1,450,000 research activity related to marine vehicle technology. Please provide for the record a summary not to exceed 5 pages of the accomplishments to date in this activity, and how this research will impact on future year Coast Guard acquisition programs for vessels.

ANSWER: Marine vehicle technology research was formally instituted in 1980 to:

a. Provide technical expertise to the cutter and boat replacement acquisition process,

b. Assist program managers and operational commanders in the deployment, support, and maintenance of vessels,

c. Keep the Coast Guard abreast of new developments in marine vehicles and establish the relative merits of different hull forms and subsystems in the performance of Coast Guard missions.

All of these factors must be considered to effectively determine vessel capabilities, establish mission requirements, evaluate alternatives, and ultimately identify the most promising platform to procure.

Support for the vessel acquisition process has been largely in the form of developing and utilizing Mission Modeling and Cost Analysis tools. The Mission Modeling techniques allow vessel, environmental, geographic, and operational parameters to be varied in order to evaluate the various acquisition alternatives and other factors affecting mission performance. The Cost Analysis tools project the costs of ownership for various types of vessels and when used in conjunction with the Mission Models, permits the evaluation of issues such as crewing, basing, and maintenance and logistics. We have successfully used the CASHWHARS cost model as well as the Search and Rescue (SAR) and Enforcement of Laws and Treaties (PATROL ELT) mission models as an integral part of our patrol boat acquisition process.

We are developing a Cutter Scheduling Assistance Program (CSAP) to obtain efficient and realistic schedules for our vessels and to simplify maintenance of cutter utilization statistics. These functions are manpower intensive and costly when done manually and may not optimize the number of vessels necessary to perform required missions. We have also worked on the hardware to improve mission effectiveness and make operations easier or with less fatigue for our people. Examples include installation of a ride control system on our Surface Effect Ship (SES) fleet and a rudder roll stabilizer system on the cutter MORGENTHAU to improve the ride and reduce crew fatigue. We are evaluating an Advanced Propulsor that will increase propulsive efficiency and thus reduce fuel costs. We also optimized the lift fan and propulsion efficiencies on the SES's to restore operation at the design speed and performed a study which demonstrates that fragmentation and small arms armor is feasible even on weight sensitive patrol craft. All of the lessons learned from this work will provide input to the types of equipment and subsystems that we purchase for future vessels or major overhauls.

We have developed a full scale testing capability to evaluate the performance of existing Coast Guard platforms and determine the capabilities for new types of vessel to perform various Coast Guard missions. Our use of SES vessels for drug enforcement missions is a direct result of our full scale testing program. These tests also permit establishing a database of operational characteristics for various hull types as a function of vessel particulars. The information provides a baseline of current capabilities, a tool for comparing and evaluating different types of platforms, and a means to verify analytical programs and models used during preliminary phases. These full scale tests are classed as Technical Evaluations (TECHEVALS) and Operational Evaluations (OPEVALS). A TECHEVAL is a short term (2-3 week) test series which quantifies the vessels seakeeping performance, power plant efficiency, range, endurance, maneuvering ability, noise and vibration levels, structural integrity, and personnel ergometric considerations using standard tests. An OPEVAL is a longer term test which evaluates the mission performance requirements, engineering reliability requirements, and system or subsystem performance specifications. TECHEVALS and partial OPEVALS have been used extensively in the acquisition process for the buoy tender (WLB/WLM) replacement and the patrol boat (WPB) procurement. We have performed tests on the Cape and

Point Class cutters to quantify and document the comparative ride quality and on a Navy SES to compare the results with that of our smaller SES as part of the WPB acquisition process. We have tested small water-plane twin hull (SWATH) vessels to evaluate their capability to perform Coast Guard missions and to assess rough water operational characteristics. We have also performed TECHEVALS of three classes of buoy tenders in direct support of the WLB/WLM acquisition and TECHEVALS on 5 classes of existing Coast Guard platforms to establish baseline mission performance levels.

We are continuing to develop mission and cost tools and plan to investigate approaches to the larger picture such as Integrated Logistics Support (ILS), Reliability, Maintainability, and Availability (RMA), and Force Mix issues. In the future we envision integrated mission simulation models that will be capable of analyzing all mission alternatives including strategies, tactics, platforms, and sensors as an integral part of the acquisition process. We intend to continue working with the operating personnel and have received a Request For R&D Support to develop an Enforcement of Laws and Treaties (ELT) operational model. This model will analyze the number, type, and location of boats used for ELT missions and would thus influence both the acquisition process and deployment strategies. We are in the process of determining a candidate vessel for further full scale testing of the Advanced Propulsor and have plans for other vessel support and maintenance projects to enhance the fleet. We will be determining the desired characteristics of Fast Maritime Response Craft, such as air cushion vehicles, for performing various Coast Guard Missions and will be performing TECHEVALS and/or OPEVALS on the lead Heritage Class vessel and the 47' Motor Life Boat (MLB) prototype. Testing on the MLB prototype could have a significant effect on acquisition since it must demonstrate acceptability of the design in order for vessel production to be initiated.

The intended effect of our Marine Vehicle Technology Research is to provide the technical data and analytical tools to rigorously evaluate the effectiveness and efficiency of major acquisition alternatives and to support, maintain, and improve the mission capability of our platforms during their service life. The tools and technology that we are developing also permit compliance with OMB Circular A-109 and provide documentation to demonstrate compliance.

SENATOR LAUTENBERG: On page 159, the Coast Guard indicates the need for $1,550,000 for RDT&E program support and operations. Please provide for the record a detailed explanation of how the funding in the RDT&E appropriation account is managed. Do project funds include expenses for office and laboratory space, for services, for training, for equipment and for supplies? If so, please indicate for each program the amount of money that is included for overhead or for general administrative expenses.

ANSWER: All overhead and general administrative expenses for the RDT&E program are funded from the support and operations account. This includes lease, utilities, maintenance contracts, computer support, travel, training, and supplies. No overhead or administrative expenses are charged to project funds with the exception of travel and training directly associated with the execution of the project.

SENATOR LAUTENBERG: Please provide for the record a complete history on the Coast Guard Pollution Fund, including expenditures from the Fund and reimbursements by responsible owners and operators.

ANSWER:

POLLUTION FUND HISTORY

POLLUTION FUND BALANCES

YEAR	APPROPRIATIONS	RECEIPTS	OBLIGATIONS	AVAILABLE BALANCE
1971	$20,000,000	$47,675	$288,255	$19,759,420
1972	$0	$311,536	$892,292	$19,178,664
1973	$0	$634,981	$9,439,340	$10,374,305
1974	$0	$2,410,741	$4,429,964	$8,355,082
1975	$0	$1,999,602	$7,974,507	$2,380,177
1976	$10,000,000	$3,650,788	$15,318,823	$712,142
1977	$5,000,000	$6,888,149	$8,643,653	$3,956,638
1978	$10,000,000	$7,144,493	$9,922,986	$11,178,145
1979	($3,500,000)*			
	$13,000,000	$5,105,112	$18,741,710	$7,041,547
1980	$10,000,000			
	$20,500,000	$5,473,096	$25,197,136	$17,817,507
1981	$15,000,000	$7,099,910	$19,745,356	$20,172,061
1982	$0	$8,263,191	$3,754,490	$24,680,762
1983	($9,000,000)*	$7,256,635	$1,941,534	$20,995,863
1984	$0	$4,792,572	$3,965,934	$21,822,501
1985	$0	$7,389,956	$4,447,173	$24,765,284
1986	($10,000,000)#	$3,984,268	$9,422,180	$9,327,372
1987	$0	$4,804,593	$3,924,246	$10,207,719
1988	($6,687,519)#	$4,354,123	$2,209,203	$5,665,120

* Congressional Transfer to AC&I Appropriation
\# Congressional Transfer to OE Supplemental Appropriation

SENATOR LAUTENBERG: The Coast Guard proposes a reduction in the amount of money to be provided from the Aquatic Resources Trust Fund on page 182 of the justification. The amount provided in FY 1989 was $30,000,000 for payment of obligations incurred for recreation boating safety assistance, whereas the FY 1990 budget proposes that that program be funded at a level of $15,000,000. Please provide for the record an estimated impact in terms of the appropriate workload measures if the Committee were to agree with the President's budget estimate.

ANSWER: We are unable to estimate the impact in terms of workload measures if the President's budget were accepted. The National Recreational Boating Safety Program is primarily carried out by the Coast Guard and the states, with some significant contributions from several boating organizations. The combined expenditure by the states of Federal grant funding and state funds for boating safety has increased over the years. We hope that this trend will continue so that state boating safety activities would not experience a decline if Federal boating safety funding were reduced.

SENATOR LAUTENBERG: According to the Washington Post of April 21, "Jim Simpson, an assistant to Yost, told the Associated Press that Congress has been reluctant to pay for construction of such a U.S. skimmer ship that might be used only once every 20 years. 'I would suspect that after this incident, the answer will be different,' he said."

Is that quote accurate? When did the Administration request funding for a skimmer? How much was budgeted?

If the Administration has not requested such funding, what is the basis for the quote?

ANSWER: The quote is not accurate. Lieutenant Commander Simpson did not state that Congress has been reluctant to pay for construction of a skimmer ship. He was asked why the U.S. did not have a large skimmer ship. Mr. Simpson said that the people who control the money had not put a large skimmer ship, that might be used only once every 20 years, high on the priority list of items the nation needed. He then said, "I would suspect that after this incident, the answer will be different." Mr. Simpson also said that we will be taking another look at what we need to respond to major oil spills, and that a skimmer ship will probably be included in that review.

We do not know of any funding requests by the Administration for a large skimmer.

SENATOR LAUTENBERG: Please provide for the record a narrative explanation of the Presidential Protection Assistance Act of 1976, and the expenditures, by year, since its enactment.

ANSWER: The Act requires under Section 6 that: Executive departments and agencies shall assist the Secret Service in the performance of its duties by providing services, equipment, and facilities on a temporary and reimbursable basis upon advance written request of the Director; except that the Department of Defense and the Coast Guard shall provide such assistance on a temporary basis without reimbursement when assisting the Secret Service in its duties directly related to the protection of the President or the Vice President or other officer immediately next in order of succession to the Office of the President.

Coast Guard expenditures by year since 1977 are:

FY77	$ 58,950
FY78	220,444
FY79	199,513
FY80	4,838
FY81	401,197
FY82	621,405
FY83	1,950,917
FY84	572,059
FY85	790,931
FY86	1,025,845
FY87	840,074
FY88	410,583
FY89 (to 4-1-89)	134,943
Total	7,231,699

SENATOR LAUTENBERG: Please provide a list of Coast Guard facilities in New Jersey, and a funding and staffing summary from 1987 - 1990 budget. What is in the Coast Guard outyear plans for each facility, and what is the status of each item?

ANSWER: A funding and staffing summary for Coast Guard facilities in the state of New Jersey, for fiscal years 1987 through 1990, is attached. FY 1987 and FY 1988, staffing totals are as of the start of the respective fiscal year. Funding totals for FY 1987 and FY 1988 represent expenditure information to date. FY 1989 staffing totals are as of 1 May 1989. FY 1989 funding totals represent budgeted amounts as of the start of the fiscal year. FY 1990 staffing and funding totals are current projections. FY 1990 funding totals are based on the military and civilian pay raises, and the non-pay cost of living increase, requested in the President's FY 1990 budget. Currently, the projected FY 1990 facility changes in the state of New Jersey are the addition of Coast Guard Cutter (CGC) ADAK, a 110' patrol boat that will be homeported at Station Sandy Hook, New Jersey, and additional funding dedicated for beach erosion control at Training Center Cape May.

UNITED STATES COAST GUARD OPERATING FACILITIES
STATE OF NEW JERSEY

UNIT (CURRENT CG ORGANIZATION)	FACILITY	FY87 PERSONNEL	FY87 $ EXPENDED	FY88 PERSONNEL	FY88 $ EXPENDED	FY89 PERSONNEL	FY89 $ BUDGETED *	FY90 PERSONNEL	FY90 $ PROJECTED
HEADQUARTERS									
CG SECEN, Wildwood, NJ	77-51210	133	$5,366,192	140	$6,346,283	141	$5,853,167	141	$6,180,842
TRACEN CAPE MAY, Cape May, NJ	77-67100	430	$42,162,135	428	$29,159,541	393	$41,484,710	393	$38,271,684
Recruiting Office, Newark, NJ	77-68127	4	$118,670	0	$0	4	$133,580	4	$138,389
COMMANDER, ATLANTIC AREA									
WBCGC ALERT, Cape May, NJ	20-12116	72	$2,951,590	72	$2,464,063	72	$2,930,381	72	$3,035,875
FIRST DISTRICT									
Group Sandy Hook, Highlands, NJ	01-36224	43	$1,298,160	44	$1,938,770	44	$1,608,900	44	$1,666,890
Station Sandy Hook, Highlands, NJ	01-30235	41	$1,108,738	41	$1,529,034	41	$2,129,497	41	$1,530,227
Station Manasquan Inlet, Manasquan, NJ	01-30217	29	$666,188	29	$755,430	29	$823,456	29	$1,016,180
CGC PT FRANCIS, Highlands, NJ	01-13256	10	$421,447	10	$393,305	10	$415,355	10	$445,744
ESMT Manasquan, Manasquan, NJ	01-50215	15	$532,555	14	$489,174	29	$720,305	29	$589,244
Station Shark River, Shark River, NJ	01-30238	19	$453,390	19	$206,980	19	$590,306	19	$720,117
CGC ADAK, Highlands, NJ	01-13933	0	$0	0	$0	0	$0	16	$647,945
FIFTH DISTRICT									
CGC HORNBEAM, Cape May, NJ	05-15217	48	$1,562,317	48	$1,078,116	48	$1,853,557	48	$1,960,977
Group Cape May, Cape May, NJ	05-36219	72	$2,299,514	74	$2,439,309	81	$4,830,588	81	$4,697,956
Station Atlantic City, Atlantic City, NJ	05-30184	30	$758,555	30	$1,345,482	29	$899,743	29	$1,575,134
Air Station Cape May, Cape May, NJ	05-20125	45	$1,986,619	45	$1,706,970	50	$1,987,496	50	$2,053,824
Station Barnegat, Barnegat Light, NJ	05-30187	33	$775,124	33	$696,364	33	$1,039,944	33	$1,465,366
Station Beach Haven, Beach Haven, NJ	05-30190	29	$637,035	30	$819,822	30	$863,634	30	$988,329
CGC POINT FRANKLIN, Cape May, NJ	05-13250	10	$488,103	10	$276,212	10	$300,722	10	$409,968
CGC POINT BATAN, Cape May, NJ	05-13240	10	$275,335	10	$426,863	10	$355,682	10	$384,027
CGC MATINICUS, Cape May, NJ	05-13815	16	$242,685	16	$715,199	16	$625,830	16	$647,945
Station Great Egg, Ocean City, NJ	05-30229	28	$593,095	28	$607,845	28	$861,661	28	$813,945
Station Cape May, Cape May, NJ	05-30624	34	$700,140	32	$723,353	32	$929,981	32	$993,458
AMT Cape May, Cape May, NJ	05-30184	23	$683,027	16	$529,588	16	$1,190,248	16	$1,666,809
GRAND TOTALS		1,174	$65,340,614	1,169	$55,347,791	1,185	$72,475,203	1,181	$71,685,827

* Anticipate that FY89 and FY90 $ expended will be greater than budgeted due to operational and maintenance increases accomplished after start of year.

SENATOR LAUTENBERG: The bill language for 1989 includes language specifying that not less than $147,000,000 shall be available for environmental protection activities. Please provide for the record a detailed current estimate of those expenditures, by location and function, and a comparison of those expenditures to the $166,067,000 budgeted in 1990.

ANSWER: By agreement with Congressional staff committee members, this figure is based on the Coast Guard's Program Budget percentage relating to the Marine Environmental Protection (MEP) program allocation. Coast Guard's Program Budget is a systematic process by which the resources from the Operating Expenses Appropriation (OE) are allocated to "operating" and "support" programs. The allocation system is based on the percentage of time spent by our operational facilities in the performance of their assigned missions at a given time.

Thus, the $147,00,000 for MEP in FY 1989 represents 6.93% of the total available OE resources devoted to this program. Likewise, the $166,067,000 budgeted in FY 1990 represents 7.37% of the total requested OE resources based on our estimate that the percentage time that our units devote to MEP missions will increase in FY 1990.

SENATOR LAUTENBERG: Please provide for the record a status report on the Ocean Dumping Surveillance System (ODSS), and an estimated cost and attainment schedule for FY 1989 and FY 1990. What are the objectives to which the ODSS is being targeted? What is the basis for these objectives? Do they need adjustment?

ANSWER: The objective of ODSS is to operate an effective ocean dumping surveillance mechanism to deter and prevent illegal dumping from vessels in transit to and at the Deepwater Municipal Sewage Sludge Site. The Coast Guard's goal is to maintain surveillance at a minimum mission performance standard of 80%. Coast Guard experience indicates that operation of ODSS at levels approaching 100% of all dumping missions would raise the cost of the program substantially without a significant increase in benefits. Effective enforcement, i.e. the high probability of discovery of illegal activity and the resultant consequences, has been attained at the present mission performance standard.

ODSS units have been installed on all sixteen ocean going vessels authorized by EPA to dump municipal sewage sludge at the Deepwater Sewage Sludge Dump Site (the 106-mile site). Since ODSS commenced operation in July 1988, there have been 40-60 dump missions per month. Over the last three months, the Captain of the Port New York has obtained complete ODSS printouts (vessel identification, position, draft, date, time, etc.) indicating system performance averaging 65%. The variance in ODSS performance results from component failures, system engineering problems and various software errors not unexpected in the fielding of a newly developed system. We continue an aggressive system engineering program and anticipate reaching the 80% performance level.

The estimated cost of ODSS installation, operation, maintenance, and management for FY 1989 is $400,000. The estimation of costs in FY 1990 pends the outcome of ongoing negotiations with EPA and OMB concerning the distribution, accounting, and project plan for the Coast Guard's portion of the Ocean Dumping Ban Act permit fees.

ODSS is the major element in the policing of dumping at the 106-Mile Site. In addition to ODSS, cutter and aircraft operations,

both ODSS mission specific and as part of multi-mission patrols, contribute to the overall effectiveness and deterrence of the program.

SENATOR LAUTENBERG: What is the 1990 budget for Coast Guard activities in support of reducing marine floatable incidents within the New York Harbor and New Jersey Bight area?

ANSWER: There is no specific 1990 budget item for Coast Guard activites in support of reducing the occurrence of floatable debris within the New York Harbor and New Jersey Bight area. The efforts to reduce these incidents are part of our multi-mission effort and fall into the general operating expenses of the First Coast Guard District in Boston. This function can be performed with the existing resources of the Captain of the Port, New York, and Coast Guard Air Station, Brooklyn, as outlined in the "Action Plan for Addressing Floatable Debris in the New York Bight."

SENATOR LAUTENBERG: What is budgeted for drug interdiction efforts in, or adjacent to, New Jersey in 1990? How does that compare to 1989 funding? To 1988 funding?

ANSWER: The Coast Guard's FY 1990 budget requests full funding for the operation of eight smallboat stations, one air station, one medium endurance cutter, four patrol boats, and two Group offices in New Jersey. All of these units are involved in drug interdiction efforts in the waters around New Jersey and were fully funding in FY 1988 and FY 1989. No additional new drug interdiction efforts are budgeted for in FY 1990.

QUESTIONS SUBMITTED BY SENATOR BYRD

COAST GUARD FACILITY IN MARTINSBURG, WEST VIRGINIA

SENATOR BYRD: In last year's testimony you indicated that the new Coast Guard Operations Computer Center (OCC) to be constructed in Martinsburg, West Virginia, had been staffed with a project manager and assistant project manager, and that the effort would be overseen by a project review group. Has the Coast Guard assigned such personnel to the Martinsburg project and established a review group? Have the Coast Guard and the GSA worked together satisfactorily to achieve timely completion of this project?

ANSWER: A Captain and a Lieutenant are assigned full time to the project. They are augmented as needed by other staff members within Coast Guard Headquarters and the Operations Computer Center in New York. A review group, chartered in March of this year, consists of representatives from each Headquarters division that has an interest in the systems operated by the Operations Computer Center. In pursuing this project, this staff continues to work closely with GSA to assure the OCC's timely move to Martinsburg.

SENATOR BYRD: The Operations Computer Center supports Coast Guard search and rescue and law enforcement requirements worldwide. The Atlantic Area Commander operates the Center on a 24 hour-a-day basis. The system has two Prime computers, with the Automated Mutual- Assistance Vessel Rescue System (AMVER) as the principal user. Other users are Computer Assisted Search Planning (CASP) and

Law Enforcement, including the new Law Enforcement Information Element (LEIS), and the Joint Maritime Interdiction Element (JMIE), another very large user. JMIE is planned to be co-located, but will be an additional system. JMIE is a Navy developed, Coast Guard operated information system that combines information from a dozen components, including the Drug Enforcement Administration, Coast Guard, Navy, Customs Service, and Central Intelligence Agency.

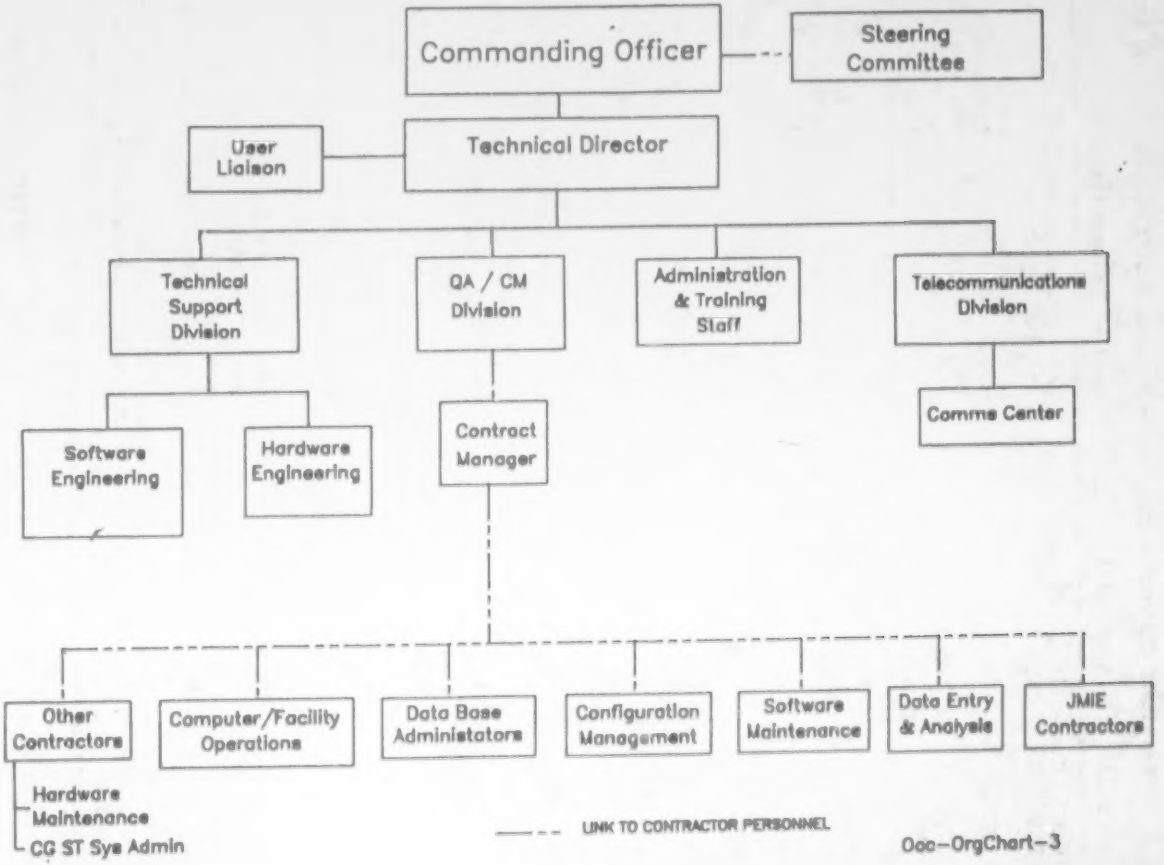
Some of the benefits of the Computer Center's move to Martinsburg are as follows:

— Move 51 people (45 military, 6 civilian) out of a high cost area to a lower cost area.
— Relieve some of the housing shortage problems on Governor's Island.
— Improve the Coast Guard's ability to hire and keep experienced computer analysts.
— Improve recognition and use of OCC as a Coast Guard wide resource.
— Provide the potential to convert approximately 25 military slots to civilian positions.
— Move to a more centralized location.

In an October, 1987 meeting in my office, you indicated that 51 full-time personnel would be transferred to Martinsburg, West Virginia with a total annual budget of approximately $2 million. Please prepare for the record a chart depicting each of the positions being transferred including civilian and military grades and salaries, the total payroll, their present organizational location and occupational specialties.

ANSWER: The following charts reflect the Operations Computer Center (OCC) as it is expected to be organized at the new site in Martinsburg, West Virginia. Although the size of the government staff will be smaller, the new OCC will obtain computer support services from a private contractor. The annual operating budget, plus personnel costs, will exceed $4.7 million.

OPERATIONS COMPUTER CENTER – Martinsburg W. Va.



OPERATIONS COMPUTER CENTER Personnel Staffing-Plan 6-18-89

Position	Speciality/Title	Moving to Martinsburg
CDR	Commanding Officer	yes Commanding Officer
LCDR	Executive Officer	no replaced by GM-14
LCDR		no replaced by GM-14
LCDR		yes as O-3 Quality Assurance
LT		yes Technical Support Division
LTJG (2 positions)		yes as O-3 User Liaison Staff
ENS		yes as O-3 User Liaison Staff
CWO2		yes Telecommunications Division
RDCM		no Replaced by civilian position
RDCS		no Replaced by civilian position
RDC		no Replaced by civilian position
RD1		no Replaced by civilian position
RD2 (3 positions)		no Replaced by civilian position
RD3 (4 positions)		no Replaced by civilian position
QM1 (4 positions)		no Replaced by civilian position
QM1 (2 positions)		no Replaced by civilian position
QM1 (2 positions)		no
QM2		no
RMCS		no
RM1 (2 positions)		yes Telecommunications Division
RM1		no
RM2 (2 positions)		yes Telecommunications Division
RM3 (2 positions)		yes Telecommunications Division
RM3 (5 positions)		no
SK2		yes Admin & Training Division
SK3 (2 positions)		no
YN1		yes as YNC Admin & Training
YN2		no
GS-9-334	Computer Specialist	yes Quality Assurance Division
GS-11-334	Computer Specialist	yes Technical Support Division
GS-11-334	Computer Specialist	yes Technical Support Division
GS-4-335	Computer Assistant	yes Reclassified as Secretary

Enlisted personnel perform watchstnding, data analysis and entry, security, computer operations, computer software programming and data base administration functions. SK and YN billets perform administrative, supply and logistics functions.

Positions marked "no" will be replaced by contractor support.

6/15/89 APPROVED OCC MARTINSBURG STAFFING

Commanding Officer	**(1) O-5**
Technical Director	**(1) GM-14** **(1) GS-4 Secretary**
User Liaison Staff	**(3) O-3 Operating Program Specialists for G-M, G-N and G-O**
Technical Support Division	**(1) GM-14 Division Chief/Analyst** **(1) GS-13/14 JMIE Project Manager** **(1) GS-11/12 Hardware Analyst** **(1) GS-11/12 Systems Analysts**

	(4) GS-11/12 Software Analysts (Applications) (1) O-3 Systems Engineering
Quality Assurance and Configuration Management Division	(1) GM-13 Division Chief/Contracting Officer (1) GS-11 Quality Assurance-JMIE (1) GS-9/11 Quality Assurance (1) GS-9/11 Configuration Manager (1) O-3 Quality Assurance
Administration and Training Staff	(1) YNC Division Chief/Training Coordinator (1) SK2 (1) GS-3/4 Clerk Typist
Telecommunications Division	(1) CWO Division Chief (1) GS-11/12 Security Manager (1) RM1 Security, Access and CMS Assistant Network/Communications Center Personnel: (1) RM1 Communications Supervisor (4) RM2/3 Comms Watchstanders
OCC Computer Center Operations	On-site Contractor Support (40-50 people including JMIE software maintenance)

Estimated Annual Operating Budget $3.7 Million
Government Personnel Payroll $1.0 Million.

GS rating indicated above are target levels. Actual rating assigned will be determined by personnel classification review.

SENATOR BYRD: Please indicate what provisions have been made to budget for this move and which agencies will participate in the costs involved and their level of participation?

ANSWER: The Operations Computer Center move will take place in phases over a four to six month period following delivery of the GSA building. This will take us into FY 1991. To cover the expenses of this part of the project, we intend to request funding in our FY 1991 budget. Other anticipated costs involve the move of the Marine Safety Information System, which will be paid for by the Coast Guard, and the move of the Joint Maritime Information Element, which will be coordinated by the Navy.

UPDATED SCHEDULE OF COMPUTER CENTER MOVE

SENATOR BYRD: The Senate report accompanying the FY 1989 Treasury-Postal Service Appropriations bill included language incorporated at my request, expressing the Committee's concern that the Coast Guard facility proposed for Martinsburg, West Virginia be expedited, as well as the Committee's expectation that GSA will comply with the schedule for the project calling for award of the contract by May, 1989 and completion of construction by March, 1990.

On October 4, 1988, the GSA approved the prospectus for the lease of the Coast Guard facility in Martinsburg.

On October 13, 1988, the House Committee on Public Works and Transportation, in response to my request, approved the resolution which concurred in the GSA prospectus.

After a recent meeting in my office, the GSA and the Coast Guard staff negotiated a revised construction schedule calling for completion of construction by the Fall of 1990.

The delays and changes from the original schedule are due primarily to the desire of the Coast Guard to build a larger facility to provide room for expansion and to the need for special security enhancements due to the classified nature of the computer activities in the new facility, a need which was not fully appreciated when the original construction timetable was established.

The following is the text of a letter from me to the Commandant of the Coast Guard, Admiral Yost, regarding the revised schedule:

February 17, 1989

Dear Admiral Yost:

This letter is to follow up on last year's testimony concerning the Coast Guard's Operations Computer Center project to be constructed in Martinsburg, West Virginia and language in the report accompanying the Fiscal Year 1989 Treasury, Postal Service, and General Government Appropriations bill regarding compliance with the construction schedule.

As a result of a meeting in my office with representatives from the Coast Guard and the General Services Administration, the attached revised schedule was agreed upon which calls for final completion of the construction in the Fall of 1990.

I trust that the new schedule will be adhered to by both GSA and the Coast Guard and I would expect to be kept fully informed regarding the accomplishment of the significant milestone events in this project.

Thank you for your attention to this request. Your cooperation is genuinely appreciated.

With kind regards, I am

Sincerely yours,

Robert C. Byrd

Enclosure to February 17, 1989 letter:

Revised Schedule as of February 16, 1989

Market solicitation (advertisement)	completed
Issues solicitation for offer	April, 1989
Offers received	May, 1989
Award	Fall, 1989
Construction Complete	Fall, 1990

Please provide for the record an updated status report and a response to my letter. May I have your assurances that I will be kept fully informed regarding the accomplishments regarding this priority project in West Virginia?

ANSWER: Since our meeting in February, we have conducted a market survey of potential locations. Numerous sites were visited and the capabilities of several potential offerors were discussed. GSA was satisfied with the level of competition available. The offerors were told the solicitation would be released in the middle of May. The potential offerors indicated they could provide adequate responses to the solicitation within 60 days. When questioned on how long it would take to complete construction, most indicated from 9 to 12 months. The 12 month construction time is consistent with the schedule agreed to in your letter of February 27, 1989. We still await the release of the solicitation by GSA in mid-May. Receipt of offers should follow in mid-July, and we remain optimistic that the award and construction will be completed in late fall 1990.

We are especially interested in the timely completion of this project and we will keep your office informed of major events that impact the execution and completion of the project.

COAST GUARD HC-130 360-DEGREE RADAR SYSTEM

SENATOR BYRD: Last year, I offered an amendment which was included in the Omnibus Anti-Drug Abuse Act, which provided $17 million for the installation of a 360-degree APS-125 or APS-138 radar system on an existing C-130 Coast Guard long-range surveillance aircraft. Such aircraft are needed by the Coast Guard to carry out its surveillance mission of the northern coast of South America to assure early detection of drug smugglers. The patrol of these areas is mandated by the National Drug Policy Board, but cannot at present be accomplished by the Coast Guard because of the limited range of the E-2C aircraft on loan from the Navy. Admiral Yost, do you consider this to be a high priority program?

ANSWER: The acquisition of this long range AEW aircraft is a high priority, but it represents a very expensive investment. Preliminary work leading to procurement is underway. We expect to be able to obtain an excellent product, one that is fully DoD compatible, and useful both in peace and war. We have identified the C-130 aircraft that will receive the radar system and are coordinating a transfer of one APS 125 Radar system with the Navy. However, there is a requirement for additional funding, to complete

the first AEW aircraft. If we can identify funding, we are prepared to continue on this critical project.

SENATOR BYRD: Almost six months have passed since the Drug Abuse Bill was signed into law. When will your Office of Acquisition initiate action to procure the 360-degree radar which would be an important element in the expanding war on drugs?

ANSWER: The Coast Guard has initiated action on this procurement. To date, we have developed a Mission Needs Statement, assigned a Project Manager, developed a Sponsor's Requirement Document, conducted a detailed cost estimate, and have been working towards a Memorandum of Agreement with the Navy for a radar system. Additional funding needs to be identified prior to awarding a contract.

SENATOR BYRD: What do you estimate to be the minimum funding needed in addition to the $17 million already appropriated, to fund the first aircraft installation?

ANSWER: In addition to the $17 million already appropriated, we now estimate approximately $24 million additional is needed to fund the first aircraft installation. This assumes the Navy provides radar system components for installation valued at $20 million.

SENATOR BYRD: Have you made Mr. William Bennett aware of the funding shortfall for this project? If so, has the possibility been explored with him of providing funding assistance of $10-13 million which could come from his discretionary fund? Would he be willing to provide such funding in view of the direct relationship of this project to the war on drugs?

ANSWER: To date, additional funding for the C-130 airborne early warning (AEW) project has not been discussed with Mr. Bennett.

SENATOR BYRD: Has the Navy agreed to provide a radar and rotodome to the Coast Guard, and, if two aircraft are modified concurrently, will the Navy provide two radars?

ANSWER: At this time, the Navy has agreed to provide only one radar system which includes the radar and rotodome.

SENATOR BYRD: It is my understanding that you testified before the House of Representatives that you need a total of some $94 million for such modifications on two Coast Guard aircraft. I assume that the $94 million includes much more than radar installations. Can you give me a better breakdown of what is included in that amount?

ANSWER: The $94 million was a preliminary estimate which included the cost of modification, system and airframe testing, documentation, training, spare parts, two years maintenance, general and administrative costs, test equipment, and profit. The figure also assumed that the Navy would provide radar system components for installation valued at only $8 million. Some refinements to these estimates, including a revaluation of Navy supplied radar components, indicates that the total cost for two aircraft modifications is approximately $82 million.

SENATOR BYRD: This Committee understands that the Coast Guard has an offer from industry whereby two of your existing C-130s could be modified with 360-degree radar for $60 million, and that the price includes Contractor furnished radar systems. While this may not provide all of the peculiar wartime capabilities needed to meet Navy requirements, it does seem to indicate that two aircraft installations for drug interdiction can be obtained for much less than the $94 million you mentioned before the House of Representatives on March 7. Would you elaborate on this matter?

ANSWER: Following Memorandum of Agreement discussions with the Navy, we believe the $94 million can be reduced to $82 million due to additional equipment being made available. The offer from industry was for a recently developed Airborne Early Warning and Control system and was offered " for planning purposes, for a budgetary price of $60 million". The system included "radars and rotodome antennas, with the exception of communications security equipment", but did not include several things that are required to meet our peacetime air interdiction requirements. The items not included are the passive detection system, spare parts, maintenance support, training, validation testing, electromagnetic interference/electromagnetic compatibility testing, and documentation. These items are considered essential to performance of the mission, either for peacetime drug interdiction or for assigned maritime defense zone missions. Actual industry bids can only be expected in response to a detailed statement of work containing all expected tasks to be performed.

QUESTIONS SUBMITTED BY SENATOR D'AMATO

NEW ROLE IN DOD INTERDICTION PLAN

SENATOR D'AMATO: In 1988, the Department of Defense (DoD) was designated as the lead agency for the detection and monitoring of narcotics trafficking. DoD recently announced that the Coast Guard would play an integral role in its new drug plan.

Please explain the new role of the Coast Guard and how you will coordinate your efforts with the Department of Defense?

ANSWER: The Coast Guard will continue as the lead agency for maritime drug interdiction and as joint lead agency, with Customs, for air interdiction. DoD's new role is as lead agency for detection and monitoring of aerial and maritime transit of illegal drugs, and the integration of C3I assets. Coast Guard will provide assets to DoD for detection and monitoring operations, and will be a major participant in the Joint Task Force organizations which DoD has established in Key West, FL, and Alameda, CA. (JTF4) and (JTF5). The Coast Guard is providing a significant number of personnel to staff these task forces, and Coast Guard Admirals command each. Coast Guard, through its key participation in the Joint Task Forces, will continue to assist DoD in developing plans for coordinating resources of all agencies for carrying out DoD's important detection and monitoring mission.

SENATOR D'AMATO: How will you be coordinating with the Custom Service? How will your surveillance and communications assets be integrated with Customs assets?

ANSWER: The Coast Guard and the Customs Service will continue to participate in joint operations in both air and surface interdiction. At the joint Coast Guard/Customs C3I East center in Miami, joint air operations have been ongoing for the past year and will continue. Customs has also collocated their surface operations center (Blue Lightning Operations Coordination Center) with the C3I center, and Coast Guard continues to lend a cooperative hand to those operations. In the Bahamas, Coast Guard and Customs cooperated in Gun Cay and West End surface interdiction operations. All joint operations with Customs continue to be improved by interoperable communications systems being implemented.

SECURE COMMUNICATIONS

SENATOR D'AMATO: There is a serious unresolved issue that seems to be threatening an effective drug interdiction effort in the Caribbean. There is a problem of secure communications among the DEA, Customs, Army and Coast Guard.

How does the Coast Guard communicate securely with Customs pilots? Can drug traffickers monitor these communications because there is no secure communication?

ANSWER: Secure radio communications between the Coast Guard and Customs pilots is achieved via secure Vinson on Ultra-High Frequency (UHF), which provides good air-to-air, line of sight communications. The Coast Guard has also installed secure Digital Encryption Standard (DES) VHF-FM systems in its HU-25C Interceptor aircraft to facilitate better comms with Customs pilots in that frequency range. For secure High Frequency (HF) comms, Customs uses a Customs-only HF system, termed 'COTHEN', which is not interoperable with the secure Parkhill HF system in use by both the Coast Guard and DOD. Traffickers cannot monitor these secure or encrypted communications.

HAITI

SENATOR D'AMATO: Have you noticed a significant increase in shipments of narcotics transiting from Haiti? How many Coast Guard personnel are assigned to Haiti?

ANSWER: Since the fall of the Duvalier regime in Haiti, there has been an increase in transhipment of drugs through the country, especially by air. Haiti offers a fairly safe transhipment point for narcotics trafficking, and political instabilities make it conducive for traffickers. There has been a significant increase of Colombians residing in Haiti over the last several years; many of them are suspected narcotics traffickers.

The Coast Guard has one liaison officer assigned to the U.S. Embassy in Port Au Prince. The Coast Guard Liaison Officer advises the Embassy staff on maritime related matters. No other personnel are permanently assigned. However, recently the Coast Guard has conducted OPBAT-like operations in Haiti, deploying helicopters and crews in cooperation with local officials to surveil and possibly interdict illegal drugs being transhipped through the country.

JURISDICTION OVER CRUISE SHIPS

SENATORY D'AMATO: Which Federal Agencies have jurisdiction to prevent drug smuggling by means of the cruise ships going through the U.S. Virgin Islands? How much potential is there for using these ships?

ANSWER: The U.S Customs Service would be the principal federal agency to target cruise ships due to the nature of cruise ship operations (i.e. entering and departing U.S. ports and embarking and disembarking passengers). DEA and Coast Guard could, under certain conditions, also exercise jurisdiction on U.S. and foreign flag cruise ships.

Due to their large capacity and often lax customs inspections in foreign countries, cruise ships offer a large potential for smuggling cocaine and other low volume/high value drugs. The potential for smuggling large volumes of low value drugs such as marijuana, however, is considered low.

C3I CENTER AT RICHMOND HEIGHTS, FLORIDA

SENATOR D'AMATO: When will the Command, Control, Communications and Intelligence (C3I) Center at Richmond Heights, Florida open? What will be Coast Guard's role in the operation of the center?

ANSWER: The C3I Center at Richmond Heights opened on 27 April 1989.

Previously signed agreements have established a 50/50 Coast Guard/Customs staffing concept for the C3I Center, with air interdiction coordination duties shared by both Coast Guard and Customs personnel. A Coast Guard officer is currently Deputy Commander and will assume the position of Commander on 1 July 1989. At that time a Customs officer will rotate into the Deputy Commander position. This rotation will continue at two year intervals as per established agreements validated at the Cabinet level. Rotation of operational command of the Center was designed to promote and reinforce the necessity for development of close inter-agency coordination in the joint air interdiction mission.

SEIZURES AND PROSECUTIONS

SENATOR D'AMATO: There are situations where the Coast Guard interdicts a drug-smuggling vessel and then turns over its occupants to foreign nations for prosecution. Does the Coast Guard monitor the disposition of these narcotics cases? If so, can we obtain a list of those cases where disposition has resulted in a prosecution and conviction?

ANSWER: No, the Coast Guard does not track the disposition of these narcotics cases.

SENATOR D'AMATO: Do you know what the Bahamians do with the vessels that the U.S. Coast Guard turns over after a seizure? Is it true that the government of the Bahamas will not put seized boats and planes into service for fear of a challenge to the validity of the seizure?

ANSWER: The Coast Guard turns over vessels it seizes to U.S. Customs Service. If, in fact, the Government of the Bahamas does not put seized boats and planes back in service, we are unaware of the reason for that decision.

BOAT LIFT FACILITY IN THE BAHAMAS

SENATOR D'AMATO: The Coast Guard Plans to build a $1 million Boat Lift Facility for the Bahamas. When is this scheduled to be completed?

ANSWER: The Boat Lift Facility for the Bahamas will be completed in May 1989.

READY ALERT STATUS OF COAST GUARD AIR ASSETS

SENATOR D'AMATO: How fast does the Coast Guard get its planes in the air? Are Coast Guard planes "pre-cocked"? Is it true that there are not enough Coast Guard crews and pilots for the H-3 helicopters in the Caribbean, and that more crews are not being trained? If not, why not?

ANSWER: The Coast Guard gets its aircraft airborne within 30 minutes of notification, almost without exception. This fully complies with Coast Guard operational requirements and those set by the American Embassy in the Bahamas. Our HU-25C Air Interceptors stationed at Mobile, Alabama, and Miami, Florida, and those that are forward deployed on strip alert, utilize a recently implemented Rapid Response Checklist to maximize responsiveness. We have not found it necessary to pre-cock our HH-3F helicopters to meet operational requirements. To date, responsiveness to drug interdiction tasks has not suffered as a result of any delay in launching a Coast Guard aircraft. The Coast Guard is currently deploying (and has always deployed) sufficient personnel to fully support Operation Bahamas, Turks, and Caicos (OPBAT) at Freeport and Nassau in the Bahamas. In anticipation of commencing operations at a third OPBAT site October 1, 1989, essential aircrew and pilot training is currently underway.

NEW YORK HARBOR VS. VALDEZ HARBOR

SENATOR D'AMATO: What is to prevent an oil spill similar to the Alaska disaster from occurring in the New York harbor?

ANSWER: One lesson learned from the Valdez spill: while the range of regulatory, surveillance, and enforcement actions can minimize the risk of disaster - that risk cannot be completely eliminated. There is always a chance of explosion, collision, or grounding which can release large amounts of oil into the water.

In the Port of New York, several factors contribute to help reduce the risk of disaster. Oil tankers transiting the Port of New York are one-half the capacity of Exxon Valdez. These tank ships vary in capacity from 20,000 to 600,000 barrels as opposed to the 1.5 million barrel capacity of Exxon Valdez. The sea bottom in the New York area is mostly soft to hard sand. There are some rocky areas in the Kill Van Kull and East River, and these have been involved in past marine casualties. Unlike Valdez, ships transiting these areas have pilots aboard in addition to the crew, and are moving at a ship grounded in the rocky areas, the kinetic energy available would not create hull damage to the extent which occurred with the Exxon Valdez.

SENATOR D'AMATO: Has the Coast Guard drawn up contingency plans for the New York area? Are the plans adequate to deal with spills of varying magnitude?

ANSWER: The National Oil and Hazardous Substances Pollution Contingency Plan (Code of Federal Regulations, Title 40, Part 300) requires the development of national, regional, and local contingency plans. It is the basis for the Region II Contingency Plan and the Coast Guard Captain of the Port, New York, local contingency plan, covering New York Harbor. The contingency plans

are designed for varying magnitudes of spills and identify an extremely wide range of response resources from many federal, state and local agencies and groups.

SENATOR D'AMATO: Are you sure the contingency plans will work? Have you tested the plans?

ANSWER: The contingency plans for the New York area have worked and we expect that they will continue to be effective. They have been used and have served for response to spills of up to 300,000 gallons. The plans are tested periodically through simulated major spills and table top exercises. In addition to the involvement of each Federal and state member of the National Response Team, these exercises test the level of cooperation and participation at the level of the Regional Response Team.

The Coast Guard is actively involved with other members of the National Response Team in a six-month review of contingency plans ordered by the President. This study will result in a systematic development of a new national preparedness policy for responding to major oil spills. Among other issues, this study will ascertain the degree to which existing Regional and Local Contingency Plans are realistically based and adequately exercised.

AVOIDING REPETITION OF VALDEZ ACCIDENT

SENATOR D'AMATO: One of the problems in Valdez, Alaska has been the proliferation of agencies with piecemeal responsibility for the cleanup, as well as the lack of central coordination and control. This, in part, prompted the President's action last Friday to send a team to take charge of the cleanup effort. What can be done to ensure that this same problem won't crop up elsewhere?

ANSWER: At the direction of the President, two high level studies have been undertaken first, the National Response Team is preparing a report to the President to address preparedness and response issues specific to the case of Exxon Valdez. The report will critically review the first 30 days response to the incident and identify a range of lessons learned. Secondly, a six-month contingency plan review is underway which will allow a systematic development of a new national policy for preparedness and response to future major oil spills. These two reviews will refocus the National Response System to insure an efficient, coordinated and effective response to oil spills and discharges of hazardous substances into the navigable waters of the United States.

LEGAL RESPONSIBILITY FOR CLEANUP

SENATOR D'AMATO: What assurances do you have that the perpetrator of a spill will be responsible for clean up efforts?

ANSWER: There are no assurances that a responsible party will, in fact, perform the actual removal operation. If the party responsible is unable or unwilling to clean up the spilled oil, then the Coast Guard would assume responsibility for coordinating the removal/cleanup operation and recover the costs from the spiller or its guarantor through litigation, if necessary. In these cases, provisions of law such as Section 311 of The Federal Water Pollution Control Act (FWPCA) provide that the spiller and its guarantor are liable to the U.S. government for the actual costs incurred during the removal operation. In the event that the spiller is unknown,

the Coast Guard would coordinate removal/cleanup operations and the 311(k) Fund would absorb all costs.

The spiller, however, may be able to limit his liability. Under Section 311, FWPCA, a vessel owner is financially responsible for $250,000 or $150 per gross ton whichever is greater for Federal spill removal costs and State and Federal resource damages. In the case of the Trans Alaska Pipeline Authorization Act (TAPS), this liability is increased to $14 million and the TAPS Fund liability is $86 million (total $100 million).

SENATOR D'AMATO: Does Federal Law or State Law determine who is financially responsible for clean-up work?

ANSWER: Subsection (f) of section 311? Federal Water Pollution Control Act establishes liability for Federal removal costs against the owner or operator of a vessel or facility which discharge oil or hazardous substances. Liability for removal or clean-up costs incurred by public and private entities is established under:

(1) subsection (c) of section 204 of the Trans-Alaska Pipeline Authorization Act against the owner or operator of vessels subject to that subsection;

(2) section 18 of the Deepwater Port Act against the deepwater port licensee and the owner or operator of vessels subject to that section; and

(3) title III of the Outer Continental Shelf Lands Act Amendments of 1978 against owner's or operators of offshore facilities and vessels subject to that title.

It is our understanding that a number of State laws also establish liability against dischargre for cost associated with clean-up work.

CREATION OF JOINT INDUSTRY POOL

SENATOR D'AMATO: Have you given thought to recommending the establishemt of a joint industry pool of resources (manpower and equipment such as booms, dispersant chemicals, etc.) to ensure the rapid deployment of sufficient cleanup materials?

ANSWER: Many such industry pools already exist within the United States, in the form of pollution response co-operatives. In areas where there are many oil and petrochemical industries, individual companies have joined together and formed oil spill response alliances. They form what is known as a co-operative, which finances and maintains equipment and personnel that are readily available to respond to an oil spill that occurs from a terminal facility, or vessel that is a member of the co-operative. Some examples of these co-operatives include: Clean Gulf (Gulf Coast), Clean Sound (Puget Sound) and in Alaska, Cook Inlet Response Organization and Alaska Clean Seas.

The Coast Guard also maintains two strike teams which are part of the National Strike Force. These teams are "our experts" in spill response and are outfitted with specialized containment and cleanup equipment. This equipment is designed and constructed to be air deliverable by C-130 transport. The strike teams are situated near airfields by design. Upon request, teams can respond to spills

anywhere in the U.S. within hours. In the Valdez incident, the Pacific Area Strike Team was requested within 2.5 hours of the spill and arrived on-scene within 10 hours from California.

SENATOR D'AMATO: What assurance can you provide to ensure that smaller companies, less well financed than Exxon, don't simply walk away from the mess they've created?

ANSWER: There is no assurance that smaller companies won't simply walk away from an oil spill. The Federal Water Pollution Control Act (FWPCA), as amended, simply states that "there should be no discharges of oil or hazardous substances into or upon the navigable waters of the United States". The National Oil and Hazardous Substances Pollution Contingency Plan (NCP), was developed as a result of the FWPCA and provides for a federal mechanism to respond to oil and hazardous substance spills. If an oil spill occurs from a vessel or facility and the responsible company does not finance the cleanup efforts, the U.S. Coast Guard would respond to the spill in accordance with the NCP. The cleanup efforts would be financed through the 311(k) fund and cost recovery efforts initiated against the responsible party.

Under the FWPCA, vessels greater than 300 gross tons are required to carry evidence of financial responsibility in an amount dependent on the vessel's trade and tonnage; in the case of an ocean-going tanker, $150 per gross ton. That level of financial responsibility is the amount the operator is obliged to pay for spill response.

Under authority of the Trans-Alaska Pipeline Authorization Act, the Coast Guard does not permit any vessel to carry trans-Alaska pipeline oil without first filing with the Coast Guard, pollution liability insurance or other evidence of financial responsibility in the amount of 14 million dollars per incident. This protection applies to both public and private persons. Beyond that, the Act provides for an additional 86 million dollars per incident, in available monies - the so called TAPS Fund - to meet damage liability claims. The TAPS Fund is managed by a private corporate entity subject to Department of Interior oversight. A vessel that does not carry trans-Alaska pipeline oil is subject only to the lesser liability regime established under the FWPCA. Vessels that carry TAPS oil could be subject to both liability regimes.

The problem of limited liability and the possibility of unresponsible spillers are two main reasons why the Coast Guard supports enactment of comprehensive oil spill liability legislation and adoption of the international protocols.

COAST GUARD'S ABILITY TO HANDLE CLEANUP COSTS

SENATOR D'AMATO: If the Valdez oil spill had been caused by a financially irresponsible party, how would the Coast Guard have handled the costs of cleaning it up? If you needed to ask Congress for the funds, how much are you authorized to request? Would it have been enough to cover the costs of cleanup as well as reimbursement to local industry in Alaska?

ANSWER: If the U.S. Coast Guard had to take full responsibility for the cleanup, we would have had to use the 311(k) Pollution Fund. The available balance as of April 21, 1989, was $4.3 million, and it would have lasted for the first few days, after which the Fund would have been depleted.

Section 311(k)(1), FWPCA, authorized appropriations of "...such sums as may been necessary to maintain such fund at a level of $35,000,000...". Assuming that this means a limit of $35,000,000 for the Fund, this would not have been enough to clean up a spill of this magnitude. Inasmuch as a supplemental appropriation is a law, Congress could appropriate a larger amount than that suggested in section 311(k), even if only one time. The problem would be one of timing. It is not reasonable to expect congressional enactment of a supplemental appropriation in a few days. The FWPCAs does not allow the Fund to pay any costs other than cleanup costs. There is no provision to reimburse local industry or other third parties injured by a spill. The injured parties would have to file claims under TAPS or proceed in federal court under the maritime tort laws.

FINANCIAL INCENTIVES NOT TO POLLUTE

SENATOR D'AMATO: We need to give companies a financial incentive not to pollute! We need to make the costs of pollution prohibitive! Right now, Exxon is paying out millions to clean-up the spilled oil and has promised to reimburse local industry. However, according to news accounts, Exxon will simply deduct these costs from its corporate taxes. Consumers are already paying higher prices at the gas pumps in California.

Do you think civil penalties might be appropriate in cases like this? Does the Federal Government have adequate authority to assess such penalties? Is legislation needed?

ANSWER: Under the authority of Title 33, United States Code (USC) 1321 the Coast Guard has authority to assess civil penalties for oil/hazardous substance spills. The statute requires a civil penalty to be assessed against a vessel or facility owner, operator, or person in charge when the vessel or facility has discharged oil or a hazardous substance in a quantity which may be harmful into the navigable waters of the United States. That person is liable for a penalty of up to $5,000 for each offense.

In the case of a major spill by a corporation with vast economic resources, as in Valdez spill, a $5,000 penalty, by itself, is not sufficient to effect a change in behavior. Unless there is civil penalty authority vested in another agency which would provide substantially higher sanctions, corrective legislation is needed.

NY HARBOR VESSEL TRACKING SERVICE

SENATOR D'AMATO: The Vessel Tracking Service (VTS) office for New York harbor was recently closed by the Coast Guard for budgetary reasons. Why did you select this facility for closure and have you given any thought to reopening it? Do you think harbor traffic can move safely without this VTS?

ANSWER: The Coast Guard's FY 1988 budget shortfall necessitated closing a variety of operational units, including VTS New York. All of the cuts can be said to affect safety in some manner. However, the Coast Guard carefully considered the impact of each candidate and chose only those with the least public safety impact. In most cases the disestablished unit had a nearby "parent unit" that could provide a similar capability. In the case of VTS New York, the local Coast Guard Captain of the Port (COTP) has broad vessel traffic management authority and can still take actions to ensure safe navigation if conditions warrant. In addition, to minimize the safety impact of disestablishing VTS New York, the

Coast Guard continued to maintain radar surveillance of the upper New York Harbor anchorages.

The Coast Guard will be updating its 1973 Vessel Traffic Systems Analysis of Port Needs study, which was the basis for establishing the VTS program, before deciding on any future VTS requirements. Vessel movement in U.S. ports is much safer today than it was in 1973. Coast Guard COTPs now have increased authority to issue orders, establish safety zones and manage vessel traffic. In addition there have been several marine safety initiatives since the 1973 study. New navigation safety regulations now ensure vessels have maneuvering data, updated charts and properly operating navigation equipment on board. Vessel steering and engine test are required before entering or leaving U.S. ports; we have increased our inspections of critical navigation equipment and backup systems. Vessels carrying certain dangerous cargos must now receive permission from the Coast Guard COTP before they are allowed to enter port. When deemed necessary, vessels carrying hazardous cargos are escorted, or a special "Safety Zone" is established to ensure other vessels stay clear. Bridge to bridge radiotelephone requirements, anchorage requirements, Vessel Traffic Separation Schemes and Regulated Navigation Areas also serve to enhance navigation safety. As a result of these changes, today's VTS is a less critical component to the safety of navigation than it previously may have been.

SENATOR D'AMATO: What is the average daily volume of traffic movement in and out of New York Harbor? What is the number for Valdez Harbor?

ANSWER: In 1987, its final full year of operation, Vessel Traffic Service (VTS) New York recorded an average of 430 vessel movements daily. VTS Valdez averaged 9 movements daily in 1988.

SENATOR D'AMATO: How many of the vessels using NY Harbor daily carry cargo, chemicals, or materials that would be hazardous if accidentally spilled into the harbor?

ANSWER: In the Port of New York, there are 28,000 movements of tank vessels transporting bulk liquid cargoes per year. These include arrivals, departures, and intra-port movements. Approximately 443 million barrels of bulk liquid cargo are moved in the harbor per year; 53 million barrels of that are crude oil and the rest is other oil products. Approximately 76% of this moves through the Kill Van Kull/Arthur Kill, 18% on the East River, and 5% on the Hudson River. An average of six tank vessels arrive in port each day. There are approximately 70 barge movements per day.

These figures do not include container and break bulk vessels which, in many cases, transport packaged hazardous materials. These materials are required to be listed on the vessel's Dangerous Cargo Manifest and are regulated under title 49 of the Code of Federal Regulations. These vessels also carry significant amounts of fuel oil for their propulsion.

NEW YORK HARBOR - FOREIGN SHIPPING

SENATOR D'AMATO: What safety requirements does the Coast Guard place on foreign ships that transport environmentally sensitive materials through New York's harbor? Are these ships inspected by the Coast Guard? What licensing standards apply to foreign crews?

ANSWER: There are many safety requirements that foreign flag ships must comply with prior to transporting environmentally sensitive materials in any U.S. port including New York Harbor. Foreign flag tankers, for example, must notify the Captain of the Port (COTP) 24 hours prior to arrival and must provide information concerning the ships cargo, registry, and state of operability of navigation equipment. If the vessel cannot immediately go to a terminal to offload, the COTP assigns it an anchorage.

The Coast Guard requires the ship itself to comply with detailed provisions of the 1974/78 Safety of Life at Sea Convention (SOLAS), the 1973/78 International Convention for the Prevention of Pollution from Ships (MARPOL), and specific U.S. requirements concerning navigation.i.e. up-to-date charts.

The Coast Guard boards these vessels at least once per year in the U.S. to verify compliance with MARPOL, SOLAS, and applicable U.S. regulations. During these boardings, the Coast Guard reviews the manning requirements and licenses of the officers to ensure they are valid for the capacity in which they are sailing. Foreign crews on ships entering U.S. ports must meet international Standards for Training Certification and Watchstanding (STCW) which are roughly equivalent to U.S. standards.

SENATOR D'AMATO: Are such foreign ships required to post bonds or submit other proof of financial responsibility to cover possible environmental accidents.

ANSWER: The Federal Water Pollution Control Act (FWPCA) requires all commercial and private vessels over 300 gross tons, whether U.S. or foreign flag, to establish evidence of financial responsibility in the amount of $150 per gross ton or $250,000, whichever is greater. This must be accomplished to the Coast Guard's satisfaction before such vessels may legally use U.S. waters. Under the FWPCA, the required evidence of financial responsibility does not apply to pollution damages suffered by private persons.

LEGISLATION

SENATOR D'AMATO: Has the VALDEZ oil spill convinced the Coast Guard that additional Federal legislation is needed to answer many of the issues regarding this massive clean-up effort? If yes, will you be drafting legislation to send up to the Hill?

ANSWER: The Coast Guard and other agencies are currently examining various aspects of the experience obtained in connection with the EXXON VALDEZ incident in order to determine, among other things, where additional legislation is required. The President has identified one area where legislation is clearly needed - comprehensive oil pollution liability and compensation legislation, including the adopting of the 1984 Civil Liability and FUND Protocols - and has stated that such legislation will be transmitted to Congress shortly.

LICENSING REQUIREMENTS FOR MERCHANT MARINE

SENATOR D'AMATO: When Captain Hazelwood applied to renew his captain's license, why didn't the Coast Guard check the truthfulness of statements made on his renewal application (regarding offenses committed)?

ANSWER: All applicants are asked to initial their answers to the questions regarding narcotics use and prior convictions. They also sign the application certifying that all the information provided is true and acknowledging the penalty for making false, fictitious or fraudulent statements. We had no indication, that the information provided by Captain Hazelwood was false or incorrect. In the absence of a reason to question the answers, the Coast Guard does not routinely check the truthfulness of the statements made on the application.

SENATOR D'AMATO: Is it Coast Guard policy not to investigate statements made on such applications? If yes, do you plan to change this policy? Do you need any legislative relief in order to effectively investigate such applications?

ANSWER: For all original licenses the applicant is fingerprinted and a criminal records check is conducted through the Federal Bureau of Investigation. Record checks or similar investigations are not generally conducted for subsequent transactions unless there is a reason to believe the applicant concealed or misrepresented pertinent information.

We plan to more thoroughly review the accuracy of the information provided by all applicants. However, while approximately twenty percent of original applicants are now found to have a previous record of some kind, less than one percent are actionable offenses resulting in the denial of a license. We believe the incidence of actionable criminal activity of existing license holders to be equally low if not lower,. The treat of suspension or revocation for willful concealment or falsification serves to ensure more accurate reporting by existing license holders.

Legislation has been introduced which would give the Coast Guard access to the National Driver Register (NDR). The NDR will make information regarding drunk driving convictions and other similar offenses (which could affect license eligibility) more readily available to the Coast Guard.

QUESTIONS SUBMITTED BY SENATOR DOMENICI

COAST GUARD USER FEES

SENATOR DOMENICI: The President's Budget calls for $180 million a year in Coast Guard user fees, to be derived from the sale of decals to six million commercial and recreation boaters and through processing fees for inspections and other services.

How much does the Coast Guard currently collect in user fees? How much of the Coast Guard's budget is directly attributable to users of Coast Guard services?

ANSWER: The Coast Guard currently collects approximately $4 million for services such as the documentation of pleasure vessels (yachts); registration of funnel marks or house flags; processing of applications for a vessel name change; new vessel determination or qualification as a wrecked vessel; processing of copies of records such as certificates of ownership or the issuance of an abstract of title; recording of deeds or chattel mortgages; issuance of certificates of financial responsibility; and, marking wrecks and obstructions to navigation.

Under the authority of Public Law 100-710, the recent Codification of the Ship Mortgage Act, fees will be implemented to recover Coast Guard expenses incurred for the documentation of commercial vessels, and fees will be increased for the documentation of yachts. Public Law 100-710 also provides for the collection of a fee of up to $1 from the owner of each vessel of the United States for the purpose of maintaining a vessel identification system. When fully implemented, these fees are expected to recover additional revenues of approximately $12 million annually.

The Coast Guard currently spends approximately $30 million for services related to the inspection of vessels and the licensing of marine personnel. Also, about $500 million is spent to provide search and rescue and short range aids to navigation services to U. S. commercial vessels engaged in fishing, coastwise or inland trade and to U. S. vessels used for recreation.

SENATOR DOMENICI: If adopted, how long would it take the Coast Guard to implement a user fee system and begin collecting the fees?

ANSWER: Full implementation is expected to take 9 to 12 months. Assuming the U. S. Postal Service will collect the proposed annual decal charge, a Memorandum of Agreement with the Postal Service will be needed. Time will also be necessary to inform the public of the charge; to design, print and distribute the decals; to train Coast Guard and Postal Service collection personnel; and to set up the necessary accounting and auditing mechanisms to ensure accurate reporting of the amounts collected. To collect the direct fees related to the inspection of vessels and the licensing of marine personnel, the Coast Guard will need to publish the charges, hire and train collection personnel, and put collection, audit and control procedures and systems into effect.

SENATOR DOMENICI: Can the Coast Guard provide the committee with a schedule of specific processing fees that support the receipts level in the budget request for user fees?

ANSWER: The $180 million user fee collections can be allocated to three general areas:

- Vessel Documentation and Inspection	$ 23 million
- Merchant Mariner Licensing and Documents	4 million
- $25 annual decal	
-Documented U.S. vessels, numbered or titled by a State	150 million
-Undocumented barges	3 million
	$180 million

SENATOR DOMENICI: As recently as two years ago, the Coast Guard request proposed user fees of $355 million in the first year and $474 million in ensuing years. Why does the FY 1990 request settle on $180 million as the level of fees?

ANSWER: The $180 million request represents a reasonable approach to recovery of costs incurred by providing services to an identifiable public. The FY 1990 level reflects recent legislation and acknowledges objections raised with previous user fee requests. Specifically, there are several reasons for the FY

1990 request to be less than the amount requested two years ago. First, documentation fees are not included in the $180 million request. These fees will be collected under the authority of Public Law 100-710, the Codification of the Ship Mortgage Act, which removed the prohibition on charging for the documentation of vessels. Second, in the $180 million request, U. S. commercial vessels would pay an annual decal fee rather than fees based on vessel horsepower or tonnage. Third, a port entry fee for vessels engaged in international trade is not included, favoring instead the annual decal fee. Fourth, the current proposal includes an annual fee of $25 applicable to each vessel of the United States (a vessel documented by the U. S. or numbered or titled by a State) and each undocumented barge operated on U. S. navigable waters. The earlier proposal included an annual fee of $37 for all recreational boats operated on water subject to the jurisdiction of the United States.

U. S. COAST GUARD — DRUG ENFORCEMENT

SENATOR DOMENICI: On the first page of your prepared statement, you highlight the activities of the Coast Guard on an average day. Three of these highlights relate to the Coast Guard's drug enforcement role. You state that on an average day the Coast Guard will seize 3500 pounds of marijuana and 35 pounds of cocaine with a street value of $6 million.

The FY 1990 budget justifications indicate that $557 million of the FY 1990 budget request supports the Coast Guard's drug enforcement activities. In your statement, you state that President Bush amended the Coast Guard request to increase the drug interdiction activity by $10 million.

Am I correct that the FY 1990 amended budget request for Coast Guard drug enforcement activities totals almost $567 million?

ANSWER: Yes, the FY 1990 amended budget request for Operating Expenses drug enforcement activities is $566.9 million. However, the total FY 1990 Coast Guard request for drug enforcement activities is $690.7 million. The dollars are distributed as follows:

APPROPRIATION	FUNDING ($000)
Operating Expenses	$566.0
Acquisition, Construction & Improvement	$119.3
Research, Development, Test & Evaluation	$ 4.5
Total	$690.7

SENATOR DOMENICI: Could you summarize for the record the various drug interdiction activities that the Coast Guard will carry out under this budget request?

ANSWER: The National Maritime Interdiction Strategy and Implementation Plan will be the basis for Coast Guard drug interdiction activities in fiscal year 1990 and beyond. A copy has been provided (previously) for the record. Our fiscal year 1990 budget request will fund 206,000 cutter operating hours and 34,000 aircraft flight hours for drug law enforcement. The budget request also reflects increased Coast Guard efforts in the interdiction of controlled substances being smuggled by air into the United States, including the operation of land based aerostats and additional E-2C aircraft.

SENATOR DOMENICI: Are there any new initiatives in drug enforcement that the Coast Guard plans to implement in FY 1990?

ANSWER: Yes, President Bush's $10 million amendment to the Coast Guard request will be used to establish a forward law enforcement operating and support base in the Caribbean. This forward staging base will allow increased cutter and aircraft interdiction operations along the maritime transit routes through the Caribbean.

SENATOR DOMENICI: Mr. Chairman, I may have some more specific questions on this issue that I will submit for a written response if that is acceptable to you.

DRUG INTERDICTION ACTIVITIES

SENATOR DOMENICI: It appears that our drug interdiction efforts in the Bahamas continue to be plagued by interagency conflicts. What has been done to resolve these problems over the past several years? How many potential smuggling targets have been lost due to the lack of coordination and cooperation between the various federal participants in our drug interdiction efforts in the southeast; please be specific as to the participants in and particulars of each case.

ANSWER: Presently, we are not aware of specific interagency problems in the Bahamas. The DEA/Coast Guard Operations Bahamas Turks and Caicos (OPBAT) operation continues to operate well. We have recently expanded the Coast Guard watch in the OPBAT Operation Center (OPCEN) in Nassau to provide better case prosecution and response; but this is simply a reflection of the growth in the number of OPBAT helicopter sites, not an indication of problems. In the past, the lack of coordinated communications did hinder some operations. However, recent communications upgrades to the OPCEN and helicopter sites have had a positive impact on the mission. The U.S. Army has also recently installed Parkhill HF secure communications systems in its OPBAT HH-60 Blackhawk helicopters. Now all participants in Bahamas drug interdiction efforts have compatible secure communications.

We know of no potential smuggling targets that have been lost due to lack of coordination and cooperation between federal agencies.

SENATOR DOMENICI: Last year's Department of Defense Authorization Bill designates DOD as the single lead agency of the Federal Government for the detection and monitoring of aerial and maritime transit of illegal drugs into the United States. I understand that the DOD is now in the process of executing its new mission. What role is the Coast Guard being given in the DOD plan? How does it differ from the Coast Guard's current role in drug interdiction? How will it affect the Coast Guard's budgetary requirements? How will DOD's plans affect the mission of the southeast C3I Center?

ANSWER: We have worked closely with the Department of Defense (DoD) in the past, and expect to further develop this relationship. The Joint Chiefs of Staff chose to implement their lead agency role by creating two Joint Task Forces (JTF 4 and 5). A Coast Guard Flag Officer commands each task force, and Coast Guard personnel will be part of the joint staffs. Memorandums of Understanding at both the national and operational headquarters

levels have been written and are being reviewed. We do not expect a significantly different role for the Coast Guard, but anticipate better coordination of resources and intelligence, and increased DoD resources to apply against the drug smuggling threat.

DoD is expected to supplement rather than duplicate or replace existing efforts, creating a net increase in resources and effort being brought to bear against the threat. Therefore DoD's involvement is not expected to change Coast Guard budgetary requirements.

The Joint Task Forces will be conducting Detection and Monitoring (D&M) Operations requiring coordination with the Southeast C3I Center. The C3I Center will continue to be involved in D&M operations, either joint-operations or coordinated operations with JTF4. At the same time, it will continue to be a focal point for coordination of interception and apprehension-- missions not part of DoD's new role.

SENATOR DOMENICI: In your view, is effective tactical intelligence being communicated through the Command, Control, Communications and Intelligence (C3I) Centers? If not, what recommendations would you give for improving the intelligence capability of the C3I Center?

ANSWER: The C3I Center at Richmond Heights will be officially dedicated on 27 April 1989. The Center will initially have a limited operational capability. Initial Operating Capability (IOC) will follow after completion of acceptance testing for installed systems scheduled to begin on 1 May 1989. The Center will have significant intelligence fusion, communications, and coordination capabilities to provide excellent potential for passing tactical intelligence. It is not possible to speculate on what improvements may be required until its IOC is achieved and performance levels established.

SENATOR DOMENICI: Under the provisions of the Anti-Drug Abuse Act of 1988, the amount authorized to be appropriated from the Customs Assets forfeiture Fund was raised to $20 million; the Coast Guard is authorized to share in the proceeds of the fund derived by seizures from the Coast Guard only if an appropriation in excess of $10 million is provided.

The fiscal year 1990 budget request for the Customs forfeiture fund is $10 million. Did the Coast Guard ask Customs to request a fiscal year 1990 appropriation above $10 million to allow its participation in the fund? If so, how was this request made and what was the Customs Service's response?

ANSWER: No. The Anti-Drug Abuse Act of 1988 was signed by the President, 11 November, 1988 too late in the budget cycle for us to request an increase in the fiscal year 1990 appropriation.

SENATOR DOMENICI: The Fiscal Year 1990 budget request proposes that the Customs Service transfer its two E-2Cs to the Coast Guard; as a result, a $10.4 million reduction in the Customs Service budget has been made.

What funding increase is included in the Fiscal Year 1990 Coast Guard budget for the transfer of the two E-2Cs?

ANSWER: A total of $7,873,000 is included in the Fiscal Year 1990 budget for additional personnel, operating, maintenance, training and facility support costs. It is assumed that any transferred E-2Cs will be fully mission capable (for all systems

installed) and an adequate initial lay-in of selected spares and support equipment will also be transferred with the aircraft.

SENATOR DOMENICI: What are the current operation and maintenance costs for each of the Coast Guard's E-2C aircraft? Will the costs per aircraft be reduced if the Coast Guard's E-2C fleet is increased from two to four? If so by how much?

ANSWER: The cost to operate and maintain the existing E-2Cs is $1,757 per flight hour. Increasing the number of E-2Cs from two to four will result in economies of scale, allowing fixed maintenance costs to be spread over the four E-2Cs, thereby reducing the cost to $1,607 per flight hour.

SENATOR DOMENICI: Would you recommend that the Customs Service transfer the two E-2C's to the Coast Guard as soon as possible, in fiscal year 1989? If not, why?

ANSWER: We are eager to acquire the two additional E-2C aircraft as soon as possible. Procedurally, however, the Navy must recover its E-2C's from Customs before transfer of any additional E-2C's to the Coast Guard can take place. We have had preliminary discussions with the Navy and Customs Service, and foresee no problems with this plan.

SENATOR DOMENICI: What percent of the time, on average, are the Southeast/Bahamas Aerostats operational? What percent of the time are they down due to waether conditions? What percent of the time are they down due to maintenance and repair?

ANSWER: Since 1987, the aerostat site on Grand Bahama Island has been operational 45% of the time. Weather conditions have resulted in 45% down time. 10% of the remaining downtime was used for routine and preventive maintenance.

SENATOR DOMENICI: No one seems to debate the radar surveillance capability of the aerostats when they are up and working; However, one of the disadvantages of these radars appears to be their high susceptibility to grounding for maintenance and repair or weather conditions. Obviously, when they are down, we have removed the blanket of continuous radar surveillance coverage they provide and air smuggling operations can go undetected. What is being done to backfill the gap created when the aerostats in the southeast are not up and operating?

ANSWER: There are a number of sensor assets which can be used for gap-filling when an aerostat is down for whatever reason. The Coast Guard has four of five Sea-Based Aerostats (SBA) planned for delivery. While the SBA's have a smaller detection range capability, their mobility is valuable, and lends them to be used as gap-fillers. Airborne Early Warning (AEW) aircraft can also be used as gap-fillers, including Coast Guard and Navy E-2C's, Air Force AWAC's, and the Customs Service P-3 AEW. While all of these sensor assets have the capability to gap-fill, they all have other detection missions which must be balanced on a case-by-case basis against the need to gap-fill for an aerostat.

SENATOR DOMENICI: I understand that the Cudjoe Key Aerostat was recently hit by lightning. Can you give us an update on this situation and what damage was done to this balloon. How long it will take for the Air Force to either repair the existing Aerostat or get a replacement balloon up and operational?

ANSWER: As a result of the April 5, 1989, crash of the Cudjoe Key balloon, the Air Force is conducting a mishap investigation to determine the reason for the loss. The results of the investigation still pend; however, the Air Force reports that the balloon was a total loss and will be replaced by a spare within a two to three week period. The extent of the damage to the radar is unknown and is still under assessment.

SENATOR DOMENICI: How successful are our current drug interdiction efforts in the southeast in your view? How do you measure whether they are successful? What steps would you recommend to improve the effectiveness of our interdiction efforts?

ANSWER: In the southeast, an increase in air drops and the trafficking of cocaine by aircraft, vessels, and land transportation lead us to believe that the Coast Guard is being effective in deterring smuggling in the maritime evironment, particularly marijuana.

Historically, marijuana had been the drug of choice for traffickers in the maritime environment. Seizures are one method of attempting to determine interdiction effectiveness. However, labeling an increase in Coast Guard interdiction statistics an "improvement" in interdiction effectiveness may be misleading. When interdiction statistics in the maritime region are down, as is the case today, it may be more appropriate to assume that we have forced traffickers to other modes of trafficking, such as air and land.

The most efficient way to improve the effectiveness of drug interdiction efforts is to ensure coordination of our nation's overall drug reduction effort. The National Maritime Interdiction Strategy Implementation Plan was promulgated to do this in the maritime environment by increasing the effectiveness of interdiction operations against drug traffickers. This plan was one of three such interdiction plans submitted to The Interdiction Committee (TIC) under the aegis of the National Drug Policy Board. They are just one part of the United States' overall strategy which includes various other supply and demand reduction programs.

While interdiction is critical to success of the overall anti-drug efforts, it is not the ultimate answer to wining the war on drugs. Interdiction and other law enforcement programs are only designed to hold the line until demand reduction takes over as the final long term solution to our drug problems.

SENATOR DOMENICI: What type and how many aircraft are currently being utilized by the Coast Guard for drug interdiction purposes? What are the annual operation and maintenance costs for each of these aircraft?

ANSWER: Practically all Coast Guard aircraft are used for drug interdiction purposes. Some are used almost exclusively in the air interdiction mission while others periodically deploy on ships, conduct surface interdiction surveillance missions, or support coastal interdiction operations when called upon. The following is a list of Coast Guard aircraft and their annual operations and maintenance (O&M) costs:

Model	# In Service	Annual O&M Costs (ea.)
E-2C	2	$1.7 million
HC-130H	27	$1.5 million
HU-25A	21	$1.3 million
HU-25B	5	$1.3 million
HU-25C	8	$1.3 million
HH-3F	26	$ .7 million
HH-3F (OPBAT)	6	$ .8 million
HH-52A	11	$ .6 million
HH-65A	67	$ .7 million
RG-8A	2	$ .2 million
VC-11A	1	$ .7 million
VC-4A	1	$ .6 million

SENATOR DOMENICI: What type and how many maritime assets are currently being utilized by the Coast Guard for drug interdiction purposes? What are the annual operation and maintenance costs for each of these vessels? How many of these vessels are equipped with Sea Based Aerostats?

ANSWER: The Coast Guard currently uses the following maritime assets for drug interdiction purposes:

a. Four Coast Guard leased vessels equipped with Sea Based Aerostats; total annual operation and maintenance (O&M) costs of $5 million each.

b. Coast Guard Cutters:

(1) Seven High Endurance Cutters; annual O&M costs of $2.8 million each.

(2) Twenty-three Medium Endurance Cutters; average annual O&M costs of $1.5 million each.

(3) Ninety-one Patrol Boats; average annual O&M costs of $0.3 million each.

In addition to the drug interdiction mission, these assets also perform other Coast Guard missions such as search and rescue, fisheries law enforcement, military operations, etc.

SENATOR DOMENICI: What additional number and type of assets to be deployed for drug interdiction purposes would be funded by the Coast Guard's fiscal year 1990 request?

ANSWER: The Coast Guard's fiscal year 1990 budget request will fund 206,000 cutter operating hours and 34,000 aircraft flight hours for drug law enforcement. The budget request also reflects increased Coast Guard efforts in the interdiction of controlled substances being smuggled by air into the United States, including the operation of two land based aerostats and two additional E-2C aircraft. President Bush's $10 million amendment to the Coast Guard request represents a new drug interdiction initiative in the form of a forward law enforcement support and operating base in the Caribbean. This base will allow increased cutter and aircraft interdiction operations along the maritime transit routes through the Caribbean.

SENATOR DOMENICI: The Coast Guard is designated the lead agency to provide detection assets to the C3I Center Southeast. How many Coast Guard assets are currently being deployed for this purpose?

ANSWER: The Coast Guard dedicates two E-2C AEW aircraft and 8 HU-25C all weather interceptors as US detection assets for C3I Center Southeast. Additionally there are 19 HU-25A/HU-25B's, and 12 C-130 aircraft that may be used for day/VFR intercepting and tracking as needed in the SEUS. There are four sea based aerostats available for air interdiction purposes, with a fifth to be added soon. The Coast Guard will operate the CARIBALL aerostat system as well as the Gulf aerostat systems when they are funded and built. We will also add two additional E-2C AEW aircraft to our fleet when they are transferred from the Customs Service.

SENATOR DOMENICI: How many and what type of Coast Guard air and maritime assets are currently being used to support OPBAT? Where are these assets currently deployed?

ANSWER: Presently there are six HH-3F helicopters dedicated to supporting the OPBAT mission. These aircraft deploy to Nassau and Freeport in the Bahamas from their air station in Clearwater, Florida. Current plans are to commence supporting operations at a third OPBAT site, Great Inaugua Island, with three additional HH-3F helicopters effective October 1, 1989.

SENATOR DOMENICI: I understand that it takes about 45 minutes to deploy the Coast Guard's air interdiction assets in the Bahamas. I understand that factors contributing to this are the fact that the crews for the aircraft are not stationed on site, and that the aircraft are not pre-cocked. First, is this an accurate estimate of the time required to deploy your interdiction aircraft? Why aren't the crews stationed on site and why isn't the box which pre-cocks an aircraft without such a built-in capability being used?

ANSWER: Forty-five minutes is not an accurate estimate. The Coast Guard gets its aircraft airborne within 30 minutes of notification, almost without exception. This fully complies with Coast Guard operational requirements and those set by the American Embassy in the Bahamas. Our aircrews are not stationed on site 24 hours a day because adequate crew rest facilities are not available; rather, they remain on site during those hours when the probability of launching is high and remain in local commercial quarters within close proximity of the helicopter on an immediate recall status the remainder of the time. We have not found it necessary to pre-cock our HH-3F helicopters to meet operational requirements. To date, no OPBAT interdiction missions have suffered as a result of any delay in launching a Coast Guard aircraft.

SENATOR DOMENICI: How important is Operation Bandit to OPBAT?

ANSWER: Operation Bandit is a Customs Operation based in Florida and focused on anti-narcotics operations within the U.S.; OPBAT is a cooperative international effort between the Bahamas and the U.S.--with DEA and the Coast Guard coordinating U.S. participation--focused on anti-narcotics operations outside the U.S. based in the Bahamas. It is run from an operations center in Nassau. The two operations are complementary. As such, coordination of forces and communications interoperability are vital...and are an area of emphasis.

SENATOR DOMENICI: The Fiscal Year 1991 "Acquisition, Construction, and Improvement" request includes $52.7 million in initial funding to replace older helicopters currently used in

OPBAT. How many helicopters require replacement? Are we talking about the HH-3s? How many and what type of replacement helicopters will the $52.7 million fund? What additional funding will be required in future years to complete this replacement program? Why isn't this replacement effort being started in Fiscal Year 1990?

ANSWER: A minimum of nine operational HH-3F helicopters will need replacement. The exact number can not be determined at this time due to evolving interagency strategy discussions on the level of aircraft support required at the three planned Coast Guard sites and whether or not the Coast Guard should support a fourth OPBAT site. The decision for the replacement aircraft for the HH-3Fs has not been made pending a study of cost alternatives. The additional funding for future years is unknown until the replacement aircraft and number needed has been decided. Due to these uncertainties and the projected remaining services lives of the HH-3Fs, the replacement effort was not commenced in Fiscal Year 1990.

SENATOR DOMENICI: What is the availability of additional trained crews for the H-3's used in OPBAT?

ANSWER: The Coast Guard deploys sufficient personnel to fully support Operation Bahamas, Turks, and Caicos (OPBAT) at Freeport and Nassau in the Bahamas. In anticipation of commencing operations at a third OPBAT site October 1, 1989, essential aircrew and pilot training is currently underway.

SENATOR DOMENICI: The fiscal year 1990 request includes $10.5 million for operation of Land Based Aerostats. What level of funding is included for each of the Caribbean Aerostats, i.e., CARIBALL I AND CARIBALL II?

ANSWER: The $10.5 million requested in Fiscal Year 1990 is for partial year operation of CARIBALL III on Great Inagua Island, Bahamas and the Air Force system which is planned to be relocated to the Venice, Florida area. Recurring funds requested in Fiscal Year 1989 for the Caribbean sites (CARIBALL I and II) totals $15.0 million.

SENATOR DOMENICI: The $10.5 million requested also includes operation of the Gulf Aerostat net. The budget Justification indicates that one of the Aerostats to be included in this net is the USAF Aerostat to be transferred from Cape Canaveral to the west coast of Florida and that the total number of Gulf Aerostat sites as well as the order and schedule is not yet definite. When do you expect these decisions to be made? When do you expect the USAF Aerostat to be transferred to the west coast of Florida? Have you made any recommendations on the sites for the Gulf Aerostats? If so, what recommendations have you made?

ANSWER: The construction schedule for the Gulf Coast aerostats is dependent upon a decision by the Department of Defense as to which sites will be funded, if any, in Fiscal Year 1990. We do expect funding to be provided for the relocation of the Air Force's system which is planned to be operational during the summer of 1990 in the Venice, Florida,area. A joint Coast Guard/Customs survey has recommended that the other four Gulf Land Based Aerostats be located in the general area of Horseshoe Beach, FL; Mobile Port, AL; Morgan City, LA; and Matagorda, TX in order to maximize coverage.

SENATOR DOMENICI: How much of the $10.5 million requested for operation of the Land-Based Aerostats is for the Gulf net? Does this estimate include two or three Aerostats? When did you assume each of these Aerostats would become operational and how much have you budgeted for each Gulf Aerostat?

ANSWER: The $10.5 million requested, funds six quarters of operations. We expect the relocated Air Force aerostat to be operating in mid FY 1990 and will require about $3.5 million. The remainder will be used to operate Cariball III and/or another Gulf aerostat once built.

SENATOR DOMENICI: The Anti-Drug Abuse Act of 1986 authorized a Bahamas Drug Interdiction Docking Facility and separate Boat Lift Facility. You indicated last year that the Boat Lift has been purchased and the lift facility was being placed at Coral Harbor. You also indicated that rather than the previously planned joint Exuma Station Docking Facility, there had been an agreement in principle to place a Mobile Support Facility in the vicinity of Georgetown, Great Exuma.

Has construction of the Boat Lift Facility been completed? If not, when will be the facility be complete and operational? What is the total cost of the boat lift facility?

Answer: The Boat Lift Facility will be completed in May 1989. The total cost to date is $911,036.

SENATOR DOMENICI: What is the status of the Bahamas Mobile Support Facility? Have any funds been spent on this facility? If not, what amount of funding is available for this facility? What is its estimated total cost? Are any funds included in your fiscal year 1990 request for this purpose? If not, why?

ANSWER: The Coast Guard has been using medium endurance and seagoing buoy tender class vessels as interim Mobile Support Facilities (MSF). Actual experience with this alternative, relative to a fixed docking facility, has led to refinement of operational requirements for the MSF. $4 million remains available for this project. We are in the process of deciding whether or not a permanent MSF can be acquired within available funds.

SENATOR DOMENICI: The urgent Supplemental Appropriations Act of 1989 provides $17 million for the installation of an APS-125 or APS-138 radar system on an existing Coast Guard long-range surveillance aircraft. What is the status of this aircraft modification? Are you modifying a C-130?

ANSWER: The Coast Guard is not currently modifying a C-130. Additional funding needs to be identified prior to contracting for the modification.

SENATOR DOMENICI: One proposal that has been made to provide radar surveillance in the Central Gulf of Mexico is to place radar-equipped Aerostats on floating sea-based, semi-submersible platforms.

Do you support this idea? If no, why? If yes, has the Coast Guard estimated the total cost of procuring, operating, and maintaining such a semi-submersible Aerostat? Has the Coast Guard evaluated the operational effectiveness of semi-submersibles Aerostats? What have you found? Would you please provide me with a copy of your analysis.

ANSWER: Yes, the Coast Guard supports the conceptual use of semi-submersible Platform Based Aerostats (SSPBAs). Estimated acquisition cost is $30.25 million. Operations and Maintenance (O&M) costs are estimated at $11.2 million per year. SSPBAs extend detection range giving us a greater detection in depth. These systems are mobile and can respond to changing intelligence on drug smuggling activity. On the other hand, cost and interference with existing FAA airways are two significant drawbacks to operating these assets. A recent Sensor Mix study for the Gulf of Mexico includes an analysis of these resources and will be available to the committee.

SENATOR DOMENICI: Has the Coast Guard any recommendations for providing surveillance coverage in the Gulf of Mexico? If so, what have you recommended?

ANSWER: A recent sensor study conducted by a joint Customs, Coast Guard and DOD panel recommends a mix of detection assets for the Gulf of Mexico. This includes a combination of Land Based Aerostats (LBAs), Semi-submersible Platform Based Aerostats (SSPBAs), and Large Sea Based Aerostats.

SENATOR DOMENICI: The fiscal year 1990 request for "Research, Development, Test and Evaluation" includes $1.7 million to develop inspection methods to locate illegal, concealed contraband. The budget justification indicates that in fiscal year 1989, the Coast Guard is conducting an evaluation of vapor detection equipment in the maritime environment and developing a portable version for use by boarding parties. Will a portable proto-type be available by the end of fiscal year 1989 or is the fiscal year 1990 funding necessary to complete its development? Would you please explain this technology more fully? Also, what is the electro-optical sensor system as well as the unmanned vehicle systems (UVS)? Would you explain these in greater detail.

ANSWER: The evaluation of the drug vapor detection equipment is specifically to determine if the system can be used in the maritime environment and, if that is successful, can a practical protocol be developed for its operational use. This is a high risk project and the technology has only been successfully demonstrated for explosives detection. An engineering prototype of the cocaine/heroin sniffer has been developed by Thermedics, Inc. composed of a collector and an analyzer. The collector draws a sample of air into a collection vial. The vial is then transferred from the collector to the analyzer, a gas chromatograph linked to a personal computer, which analyzes the sample and triggers an alarm when concentrations of excited nitrous oxide are detected which indicate the presence of cocaine

and/or heroin. The equipment at present is quasi-portable in that the analyzer is not portable and in an operational scenario would be kept onboard the patrol vessel. The sample collector is portable but awkward. If the equipment works in the marine environment and a practical protocol can be developed then the decision will be made, based upon cost to benefit, as to funding development of a prototype system. Because of extended negotiations with the vendor, the present evaluation has not yet started. There will be no prototype developed in FY89. If the preliminary evaluation is successful, FY90 funding will be designated for prototype development.

Coast Guard vessels are extremely limited in their ability to detect, classify, and identify other vessels in their vicinity to the extent required of efficient law enforcement operations. The ships are now using radar, night vision scopes/goggles, and search lights. The electro-optic sensor system development will extend their capabilities. We are looking at improving the detection range of the radar, supplying a high magnification, an infrared detector operating in the 3 to 5 micron range for classification, and a stabilized low light level television (LLLTV) for identification. This effort is low cost and using equipment that is available within a year. Adding this equipment will improve the ships capabilities but can not completely meet the operational requirements. A decision will have to be made, again based upon cost to benefit, as to whether to continue with development of a sensor suite that fully meets the operational requirements.

The Coast Guard will be assessing the capabilities of unmanned vehicle systems (UVS's) in doing Coast Guard missions based on available systems or soon to be available. Once systems are identified as potential candidates they will be evaluated. Unmanned air vehicles (UAV's), remotely operated vehicles (ROV's) for underwater use, and surface UVS's are of interest for potential use in law enforcement, defense operations, ice operations, port security, and marine environmental protection. The Coast Guard has developed liaison with the DoD Joint Program Office for Unmanned Aerial Vehicles and will be providing a ship for the NATO demonstration of UAV's for fast patrol boats, corvettes, and frigates.

SENATOR DOMENICI: How much of the $1.7 million requested is allocated for each of these research projects?

ANSWER: If preliminary evaluation of the Thermedics drug detection device is successful, up to $500 thousand of the FY90 funding will be applied to prototype development of a portable system. Also, we are attempting to identify other potentially useful technologies/devices through liaison with U.S. Customs Service and a Small Business Innovative Research Program solicitation. A portion of this $500 thousand may be necessary to determine the feasibility of identified technologies/devices for use in the marine environment. $1.1 million is designated for development of

an electro-optic system for Coast Guard ships. $100 thousand has been designated for evaluation of potential unmanned vehicle systems.

U.S.COAST GUARD -- DOD TRANSFERS

SENATOR DOMENICI: Let me welcome you, Vice Admiral Lusk, and say what a pleasure it is to join the Subcommittee in receiving your testimony on the Coast Guard's FY 1990 budget request. I'd like to congratulate the men and women of the Coast Guard as it enters its 200th year of service to the nation, much as is the United States Congress currently in its bicentennial year.

In highlighting the various components of the FY 1990 budget request totaling $3.5 billion, you have testified that the largest part of the proposed increase over the FY 1989 program level is for the replacement of the polar icebreaker at an estimated cost of $244 million. Aside from this initiative, the overall increase for the Coast Guard is essentially equal to the inflation estimate, according to your statement.

On page 7 of your testimony, you indicated that the $200 million the Coast Guard is receiving from the Department of Defense in FY 1989 is included in the funding base for FY 1990. Would you provide for the record an accounting of for what purpose the $60 million in funding the Defense Department transferred to the Coast Guard in FY 1989 are being used?

ANSWER: The Department of Defense transfers the Coast Guard the $60 million in $15 million quarterly apportionments. The $60 million goes to directly support our Operating Expenses Appropriation and are distributed prorata across all programs and object classes. These funds allow the Coast Guard to maintain operations at our present levels. Without these funds, our FY 1989 programs and services to the public would need to be reduced accordingly.

SENATOR DOMENICI: Could you also explain to the Subcommittee what types of "services-in-kind" provided to the Coast Guard by the Department of Defense in FY 1989 will have to be financed out of its FY 1990 appropriation?

ANSWER: The $200 million in support from Department of Defense for FY 1989 is actually more than just services and includes supplies and a Research and Development project for a portable lightweight sonar.

The major types of support are:

- Supplies/Fuel (Stock Fund)
- Medical Services
- Ammunition
- Chaplain Services
- Sonar R&D

I must reiterate that without this $200 million in Department of Defense support for FY 1989 and without these funds being annualized in our base for FY 1990, Coast Guard programs and services to the public will be reduced accordingly.

SENATOR DOMENICI: As you mention, the Congress directed in report language last year that FY 1989 would be the last year that the Department of Defense would provide funds to the Coast Guard. If the subcommittee is unable to directly fund this $200 million in dollars and services previously financed by the Department of Defense, what impact would that have on the Operations of the Coast Guard? In other words, how would you implement such a reduction in your FY 1990 Budget request?

ANSWER: In FY 1989, the Coast Guard received from the Department of Defense (DOD), $60 million in a cash transfer and $140 million in services-in-kind. If this $200 million is not directly funded in FY 1990, as the President's request assumes, the overall impact would be catastrophic. It would virtually bring Coast Guard operations to a standstill in the short term and would lead to a substantial reduction in force and unit closures.

In the short term, most Coast Guard OE expenses are fixed in the form of personnel compensation, and entitlements, rent utilities, etc. Immediate reductions could only be realized by sharply curtailing operations, maintenance and spares replenishment, and training.

In the longer term, a $200 million reduction could be accommodated only by a major reduction in force, on the order of 4,000 people. Many operational and support units would have to be closed or reduced, new initiatives in the budget would have to be canceled, fewer resources would be devoted to the nation's war on drugs and several of our other missions would be degraded with a very noticeable loss of service to the public. This would represent approximately a ten percent reduction in the size of the Coast Guard.

U.S. COAST GUARD - ALASKA OIL SPILL

SENATOR DOMENICI: Vice Admiral Lusk, your prepared statement documents the far-ranging activities of the U.S. Coast Guard. These activities have, of course, been highlighted for the world with the recent oil spill from the Exxon Tanker, "Valdez," in Alaska.

The Subcommittee is aware that Commandant Yost has been sent to Alaska to personally oversee the developments in the clean up of the oil spill, and that there will be a coordinated federal response to assist in the clean up of this major spill.

As I understand it, the Coast Guard has at its disposal the resources of the Pollution Fund for its containment and cleanup activities in Alaska. Is the Coast Guard tapping this fund to finance their activities in Alaska?

ANSWER: Yes, the Coast Guard is using the Pollution Fund to finance activities ordered by the On-Scene

Coordinator, including support requested by EXXON, such as skimmers from the Navy Supervisor of Salvage and heavy lift aircraft transportation services from the Air Force. The ability of the OSC to obtain these needed services on short notice is contingent upon having 311(k) funds to obligate. Reimbursement to the Pollution Fund will be sought from EXXON and/or the Trans Alaska Pipeline Act fund.

SENATOR DOMENICI: As the Coast Guard operation gets underway, will you keep the Subcommittee advised of the resources you are devoting to cleanup effort?

ANSWER: Yes, U.S. Coast Guard Headquarters is actively monitoring the spill response efforts being conducted by EXXON in Valdez. We will provide the Subcommittee with information on personnel and capital assets being devoted to the cleanup effort.

SENATOR DOMENICI: It has been my impression that EXXON, in claiming full responsibility for the oil spill, will accept full liability for the costs of the cleanup. What agreement, if any, does the Coast Guard or Department of Transportation have with EXXON for the repayment of any cost of the cleanup financed out of the Pollution Fund?

ANSWER: Currently, there is no written agreement between the Department of Transportation or the Coast Guard and EXXON. However, EXXON has already transferred $9.9 million to the Pollution Fund for government costs associated with the spill. The Coast Guard expects EXXON to continue to meet its financial commitments for cleanup of the spill.

SENATOR DOMENICI: At this point, would you anticipate coming to the Congress for additional resources to mount the cleanup campaign?

ANSWER: EXXON is making payments to the Coast Guard (i.e., Pollution Fund) for costs incurred in cleaning up the Alaskan Valdez oil spill. Although the Pollution Fund balance is low (i.e. approximately $6 million), we expect that EXXON will continue to assume the costs of the Valdez clean-up effort. To lessen the chance that the fund would not be in a ready-response posture for a catastrophic spill, the Administration has submitted to Congress proposed Comprehensive Oil Pollution Liability and Compensation Legislation. This legislation would provide necessary funding for future clean-up activities.

SENATOR DOMENICI: If the Chairman and the Ranking Member think it helpful, could they request of the Secretary of Transportation, who is the overall coordinator of the federal cleanup effort, that he provide the Subcommittee with cost estimates for the cleanup as they become available?

ANSWER: The Coast Guard is managing use of the Pollution Fund on a day-to-day basis. At this point, 4 weeks after the incident, a meaningful estimate of the total costs that the government will incur responding to this spill is not available. A full reconciliation of the accounting records and careful identification of costs that

should be billed will take place when the response is over. Only at that point will we be able to accurately identify our total costs. Our total costs as of April 20, 1989, are approximately $12 million. The Government's response costs are averaging about $2 million per week. It is not known how long this level of effort will continue.

Our estimates will only reflect U.S. government costs. EXXON has not made public estimates of its costs.

QUESTIONS SUBMITTED BY SENATOR HATFIELD

The January 3, 1989 Coast Guard rescue of Oregon Air National Guard Lt. Michael Markstaller off the Oregon coast was conducted with courage and professionalism and I join all Oregonians who are grateful to the dedicated Coast Guard personnel who participated in the rescue. However, as you know, Lt. Mark A. Baker did not survive the crash of his F-4C Phantom jet, and that brought to light some deficiencies in the search and rescue program in Oregon.

The HH-65A Dolphin helicopter dispatched to the rescue scene experienced engine failure and a second helicopter went out nine minutes later. The second backup aircraft was undergoing maintenance work at the time and was inoperable.

SENATOR HATFIELD: What has been done to address the unreliability of these engines? I note that the General Accounting Office has found that these helicopters were available only 45% of the time in 1987 compared with Coast Guard standards which I understand to be 71% per year.

ANSWER: Engineering improvements to increase engine durability as well as efforts to improve availability of engines through in-house overhauls are underway. However, solving inherent design problems may not be economically practical or possible. If the cost to maintain the LTS-101 does not improve, re-engineering the aircraft will be less expensive over the life of the HH-65 than fixing the present engine. We are exploring the possibility of using the U.S. Army's T-800 engine, the only DOD supported engine suitable for the HH-65. In FY87, official Coast Guard statistics indicate the HH-65 was available 49% of the time; however, availability improved in FY88 to 56%. Engine problems and airframe parts shortages are both contributors to this below-target availability and little improvement is seen in the future without solving these problems.

SENATOR HATFIELD: Please advise me of the status of the proposal to replace the engines with different models manufactured through the Defense Department.

ANSWER: The U.S. Army has expressed interest in a joint development program to integrate their T-800 developmental engine with the HH-65 helicopter. The Army would provide three T-800 (pre-production) engines for installation and qualification in the HH-65/T-800 proof-of concept. In addition to these engines the Army would provide contracting support for the solicitation, evaluation, and award of contract(s) for the design, development and manufacture of components and parts required to install the T-800 engine in the HH-65. The Army's Aviation Systems Command would act as the

contracting agency for the Coast Guard. We must continue to seek fixes to present problems in order to support the HH-65 missions with the LTS-101. A replacement engine design and implementation program will probably take at least 5 years.

SENATOR HATFIELD: Are there any plans to provide additional helicopters to Oregon?

ANSWER: There are currently no plans to assign additional helicopters to Oregon.

SENATOR HATFIELD: Has the rescue swimmer program been fully implemented?

ANSWER: The Coast Guard's original plan included the establishment of several additional units that proposal is currently under review in the office of the Secretary.

SENATOR HATFIELD: How many rescue swimmers are there in Oregon?

ANSWER: There are presently ten rescue swimmers assigned in Oregon. Five rescue swimmers each are assigned to Air Stations North Bend and Astoria.

SENATOR HATFIELD: As you know, the rescue swimmer in the January 3rd incident wore a dry suit that leaked, causing her to contact hypothermia. This prevented her from attempting a second rescue. How can this be prevented in the future?

ANSWER: Steps to prevent this occurrence from happening again have already been implemented. Each rescue swimmer is custom fitted for both a wet suit and dry suit. Upon receipt of these suits from the manufacturer, all rescue swimmers are required to try the suits on, ensure the fit is satisfactory, especially around the ankles and neck. If the fit is improper, the suits are returned for correction. This procedure is carried out before the swimmer wears the suit on an actual flight.

SENATOR HATFIELD: Has the Coast Guard conducted a review of this search and rescue operation to determine ways upon which it could have been improved?

ANSWER: The Air Force Safety Investigation of the incident exonerated the Coast Guard of any shortcomings in response or performance. Some recommendations came from internal studies that will ensure closer routine working relationships. Specifically, the Air Force is now giving the Coast Guard weekly schedules of their offshore training exercise activity, and the Air Force also attempts to provide its own search and rescue coverage as a part of exercise planning. The Coast Guard is now notifying the 25th Air Force's Northwestern Sector Operations Control Center at Mc Chord Air Force Base when Coast Guard aviation equipment is not able to provide rescue response.

SENATOR HATFIELD: Has the Coast Guard reprioritized its search and rescue responsibilities among its other duties?

ANSWER: No call for help goes unanswered. Search and rescue remains the first priority mission above all others when there is a distress incident. It is a mature program that has an extensive and proven infrastructure capable of responding to safety needs well out to sea around the country. This can be a direct Coast Guard response, or a coordinated effort orchestrated among foreign,

federal, state, local and civilian volunteer sources of search and rescue assistance. As a multi-mission agency, the Coast Guard benefits by having resources able and ready to perform several types of missions.

SENATOR HATFIELD: Within our limited resources, how can Congress best assist you to ensure that future search and rescue missions are conducted in the most efficient and professional manner?

ANSWER: We would enjoy support for our programs as they are submitted in the President's budget.

SENATOR HATFIELD: In 1987, The Secretary of the Department of Transportation, Elizabeth Dole, committed the Coast Guard to include Portland Ship Repair Yard within the Puget Sound homeport area. This expansion of the "150 Mile Rule" has enhanced the opportunities available for PSRY contractors to bid on Coast Guard vessels. In addition, the Coast Guard has benefited from enhanced competition by bidders, resulting in lower outlays for the ship overhaul and repair budget. Does the Coast Guard remain committed to inclusion of Portland-based ship repair contractors in the Puget Sound homeport area?

ANSWER: Yes. The current Puget Sound homeport area will continue to include the Portland Ship Repair Yard.

SENATOR HATFIELD: What are the Coast Guard's plans for maintaining the vital search and rescue mission capabilities along the Oregon coast?

ANSWER: The Coast Guard believes the level and mix of resources ready to respond to emergencies along the Oregon coast are sufficient. All sections of the coast are covered at a level which meets or exceeds our search and rescue program standards for response capability.

SENATOR HATFIELD: In 1985 then Commandant Gracey transferred the icebreaker GLACIER to Portland, designating Portland as its homeport. Subsequently, due to age and condition, the GLACIER was decommissioned. What plans does the Coast Guard have to take advantage of fresh water berthing facilities available in the Columbia River for homeporting of vessels?

ANSWER: Present plans do not call for transferring a vessel to Portland.

SENATOR HATFIELD: The CITRUS continues to perform valuable service along Oregon's south coast. Has there been any change in your commitment to continued operation of the CITRUS at Coos Bay?

ANSWER: No. Present plans call for CITRUS or a similar cutter to continue operations out of Coos Bay.

SENATOR HATFIELD: Can you tell the Committee how the Coast Guard interacts with the Corps of Engineers concerning any Corps proposals to alter its harbor maintenance dredging in ports where you have vessels homeported? Are you satisfied with the Corps' understanding of the importance of adequate dredging to allow you to perform your missions?

ANSWER: The exchange of information between the two agencies has been very successful and has resulted in much cooperation between the Corps of Engineers and the Coast Guard on a district

level. The Coast Guard is satisfied with the Corps' understanding of the importance of adequate dredging to allow us to perform our missions. The Aids To Navigation Manual, Administration, Commandant Instruction M16500.7, directs Coast Guard district commanders to contact district and division Corps of Engineers offices from time to time to inquire about plans for improvement or new developments which may affect Coast Guard functions, and obtain information on such plans or developments directly. The Chief of the Corps of Engineers has instructed district engineers to provide the following information directly to the Coast Guard Districts:

(1) Advice as to the authorization by Congress of a project involving changes in channel limits, breakwaters, etc., with a copy of the project documents;

(2) The proposed operations on such projects during the next fiscal year; and

(3) Blueprints showing the final location of the channel limits, breakwaters, etc., of the work to be undertaken.

SENATOR HATFIELD: Can you give us a status report on your expansion of the small port exchange in Coos Bay, particularly in light of the arrival of the ORCAS, with its new personnel.

ANSWER: The current exchange is in rented space owned by the City of North Bend just outside the main gate of Coast Guard Air Station North Bend. The building stands in the path of an airport modernization project, and a new road has been built within 15 feet of the front door eliminating 13 of 16 parking spaces. Although additional parking will eventually be available across the street, it is unlikely that the current lease will be renewed by the city. In addition, the space is inadequate. Coast Guard Air Station North Bend submitted a planning proposal to construct a new exchange on base; however, there are insufficient funds and time to accomplish this construction project before lease expiration. A commercial building, located about 1/2 mile from the Air Station and available for sale, has been identified as a solution. In February 1989, the Coast Guard Trust Fund authorized the expenditure of $400,000 in non-appropriated funds to purchase the building. Coast Guard Maintenance and Logistics Command Pacific is presently in the process of negotiating the purchase. We anticipate occupancy of the new facility within the next six months.

GENERAL ACCOUNTING OFFICE

STATEMENT OF KENNETH M. MEAD, DIRECTOR

ACCOMPANIED BY:

RONALD J. MACCARONI, ASSISTANT DIRECTOR, COAST GUARD AND MARITIME MATTERS

JOEL L. SLOTSKY, ASSIGNMENT MANAGER, COAST GUARD MATTERS

INTRODUCTION OF WITNESS

Senator LAUTENBERG. We will be hearing now from Mr. Mead.

Thank you very much for your indulgence. It is good to see you again.

We call on you for all kinds of things. Today we are going to be talking about a budget request that has been submitted that includes a request for $244 million for a new icebreaker. The total acquisition cost is estimated to be something over $330 million, with an annual estimated operations cost of about $7 million.

We asked GAO to review this budget request and see if the justification submitted by the Coast Guard supports the needs request.

So we are pleased to have you here. And, as you already recognized, the time is flying. And though the subject should not be dismissed casually, we ask you, please, if you can, summarize your statement and introduce your colleagues.

Please, go ahead.

STATEMENT OF KENNETH MEAD

Mr. MEAD. Thank you, Mr. Chairman. If I might introduce my colleagues. This is Ron Maccaroni on my left; he directs our work in the Coast Guard and maritime and shipping area; and Joel Slotsky at my right; he has directed our work on the icebreaker project.

I might say I will greatly summarize my statement. It has been a real education sitting here this morning.

Senator LAUTENBERG. For me as well.

Mr. MEAD. While waiting sometimes is not always the most pleasant thing, it certainly was this morning. I learned a lot. Also, I do not know if you have this, but in November 1988 we issued a report on the Coast Guard's decision to close VTS's, the New York and New Orleans ones in particular.

And I will make sure that your staff gets that if they do not have it already. It goes into the processes that they used and the judgments they made and why.

Senator LAUTENBERG. Was there a summary conclusion?

Mr. MEAD. Yes, there was. We found that essentially the Coast Guard closed the ones that were not mandatory; that the analysis that they used in deciding what to close did not take into account the types of things that you would like to see taken into account.

For example, transit levels in New Orleans: 212,000 boats in 1987. In Puget Sound it was 211,000. In Prince William it was 3,000. And you can see that the activity levels of the ones that were closed were similar to the activity levels of the ones that were left open. But the ones that were left open were ones that were mandated by law.

We also found, interestingly, some disagreements within the Coast Guard at fairly senior levels about the value of VTS's. And that is kind of a snapshot. .

Senator LAUTENBERG. We will take a close look at that. Because I can understand why there are differences. Budget pressures often force decisions that otherwise would have a different outcome. It is both good and bad, obviously.

Recognizing that what we do now know about the consequence of an accident, will cause us to rethink things. That is why I ask. And I appreciate your commentary. That is your assignment, and I am always glad to see you do it.

We will expect from the Coast Guard a kind of reevaluation of the VTS operation and ask them to do that regardless of the financial commitment, so that we can make what is called qualitative decisions without the Coast Guard having to be under the kinds of pressure that they have been under.

They were being asked constantly to do more and to do it with less. We now, I think, appreciate some of the work that they have done as we have not seen it, perhaps, before.

You do not get the kind of dramatic impact that you unfortunately get from an accident of this magnitude and the devastation that comes with it; it is going to affect thinking and policy in this country, and I think throughout the world in many different ways.

The balancing off of energy needs compared to the resultant damage that might come about, whether that is an accident, or depletion of the ozone, or other air quality things, this, in my view, is a benchmark for evaluating what kind of life we lead as a country and as a world.

So we will look at these things in a different context as we respond to different situations.

We appreciate that. We will look at that report.

Once again, we are pleased that the Coast Guard is here, not only because they are going to participate in some way, but also because they can hear what we are discussing.

Please, go ahead, Mr. Mead.

Mr. MEAD. Thank you, sir.

I do want to point out that the Coast Guard has been very full, open, and cooperative in all of our work. We think, though, that there are a number of critical uncertainties that ought to be resolved before the decision to buy a new icebreaker is made.

Our testimony today will discuss these uncertainties which fall into basically three categories. The first category is user need projections. A second category is alternative ways of meeting icebreaker needs. And a third category is the appropriateness of the design of the new icebreaker.

Now, we think that some reassessment of the projected user needs is warranted. But reassessment of needs alone will not provide the answers to some of the uncertainties. And, more funda-

mentally, the Coast Guard itself is not the agency that will be able to resolve all of these uncertainties.

I will allude to that a little bit later.

But important policy decisions need to be made relative to the management, funding, and use of the Nation's icebreaker fleet.

We think an excellent forum for addressing these issues is a report the President is supposed to prepare and transmit to the Congress. I think it was supposed to be sent over here by October 1, 1988. It has not yet been completed.

Some quick background on the icebreaker fleet. It has declined because of age and budget constraints from five in 1980 to two in 1989. As you pointed out, they are now requesting funds for a new icebreaker, the total acquisition cost: $330 million; estimated annual operating costs: in the neighborhood of $7 million.

The Coast Guard is requesting funds for a new icebreaker mostly to meet the needs of other people, other agencies. And they are: the Department of Defense, the National Science Foundation, the Geological Survey, and NOAA.

The ship they propose to purchase, compared to its existing two icebreakers, will have greater research capability, but less icebreaking ability.

The Coast Guard's request for a new icebreaker is based largely on the conclusions of two studies of projected icebreaker needs, one they did in 1984, the other in 1988.

The 1984 study projected immediate need of about 670 icebreaker days a year and concluded from that, that four icebreakers are needed. That determination is based on a Coast Guard judgment that about 145 operating days are available annually per year, per icebreaker.

The bulk of the rest of the year is reserved for training and maintenance. But a number of factors raised some major uncertainties about the accuracy of the projected needs identified in those studies.

The first: The projected user days may not be accurate because of the impact funding constraints have had on some agencies' abilities to conduct planned research, particularly NOAA and USGS. They said that reduced budgets have forced their agency to deactivate their own vessels that were used in the past for research. And they are concerned about the impact of the 1990 budget on their ability to use icebreakers.

And while the effect of future funding constraints is uncertain, I did want to give you an idea of their magnitude.

The 1988 study indicated that that factor could make its total user estimates as much as 50 percent too high, which is a significant variable when one considers that about 90 percent of the icebreaker use is for other Federal agencies, not the Coast Guard.

Second, user day projections may be inaccurate because the current cost-sharing arrangements that are in place do not provide incentives for the agencies to identify only those needs that they actually will end up using.

And that is because users do not have to pay the Coast Guard for icebreaker days they say they will need but do not use.

That happens even though the fees have covered only about 8.5 percent of the operating cost over the past 2 years. And they do not cover any of the construction costs.

Finally, the accuracy of projected user days are called into question because of Coast Guard and National Science Foundation disagreements about requirements for resupplying stations in the Antarctic.

While the Coast Guard thinks that a backup icebreaker is required during the resupply of the National Science Foundation's McMurdo Station in case the primary icebreaker gets stuck in ice, the National Science Foundation does not think so.

And part of the reason for that may be because they would have to pay for it.

NSF also disagrees with the days included in the projections for the resupply of its Palmer Station because it now accomplishes the mission with its own vessel.

But perhaps the most critical factor raising uncertainties about the accuracy of projected user days is that the National Science Foundation, which has been the largest single user in the past, almost 50 percent at times, plans to obtain its own vessels to perform research in the Antarctic and Arctic.

In fact, one of the vessels that NSF will procure is going to be an icebreaker. And it will be based in the Antarctic, but it will be less capable than the Coast Guard's icebreakers.

National Science Foundation officials told us that while the agency will still need Coast Guard icebreaking support after it obtains its own vessels, the number of days it will need for research will not be as much as has been included in the studies.

And further, the National Science Foundation plans to offer space on its vessels to other science agencies when possible.

And the Navy has long-range plans to obtain a vessel for its Arctic research. And, to the extent other agencies do that, that competes with the Coast Guard's ability to provide the research.

But if all these actions occur, the number of projected user research days included in these studies will be reduced even further.

A quick word about wartime needs. Although the focus of our review of this was on peacetime, there was a study done that concluded that there was a need for two icebreakers. Of course, the Coast Guard already has two icebreakers, but some Navy fleet commanders took a look at the study and said they thought that there really ought to be four in the case of wartime.

But we do not have a study over there that reaches that conclusion.

Our concern about the accuracy of projected icebreaker needs is compounded because there is insufficient analysis of alternatives for meeting those needs.

One is adding a third crew to alternate between its two existing icebreakers. That could add as many as 55 operating days annually per ship, increasing the total available annual operating days for the two vessels from about 288 days to 398 days.

In addition, moving one or both of the two existing icebreakers from their current homeport on the west coast to the east coast could increase available operating days by reducing transit time to the Greenland area.

Another option might be to obtain icebreaking services from other countries. Canada, for example, operates eight icebreakers and might be able to assist in resupplying Greenland bases on a cost-reimbursable basis.

In addition, there are four Canadian commercial icebreakers that have indicated their availability to support scientific research.

While the Coast Guard, its icebreaker users, and the interagency studies have indicated the need for further analysis of these various options, particularly the extra crew, such an analysis has not been done.

And finally, a word about the type of icebreaker needed. While the design for the new icebreaker was determined, according to Coast Guard officials, after extensive coordination with the users and consideration of available funding, several important questions remain about the appropriateness of the design.

For example, National Science Foundation officials told us that if the agency obtains its own vessel for Arctic research, it will require icebreaking support in the future that is likely to be more compatible with the Coast Guard's existing icebreakers.

The basic difference is the proposed icebreaker will be able to crunch 4.5 feet of ice. The two existing breakers can do 6 feet.

In addition, the Coast Guard believes that an icebreaker of its existing type is required for resupplying the McMurdo Station in the Antarctic, and that another icebreaker of the same type would be required as a backup if the first one breaks down or gets stuck in ice.

While the Coast Guard has two icebreakers of the same type, each is scheduled for 165 days of maintenance annually. And having only two of that type of icebreaker could lessen the chance that both will be available to fulfill primary and backup roles.

And just a word on the administration's report on icebreaker needs.

The Coast Guard 1988 authorization required the President to report to the Congress by October 1, 1988. And I mentioned that earlier, I believe. And we understand that disagreements and differences between the Coast Guard and the National Science Foundation have delayed that report.

But, in our view, that report could serve a critical role in resolving a number of the issues that are outstanding.

For example, although the Coast Guard is designated as the single manager for the Nation's icebreaker fleet, NSF is acquiring its own icebreaker. And while NSF officials have told us that their vessel is a more efficient and effective way of meeting its research needs, the Coast Guard feels that using its vessels only to break ice makes their operation less efficient.

In addition, they noted that, unlike the Coast Guard vessels, the NSF icebreaker will not be available for national defense.

Further, there are questions relating to use of foreign vessels to support U.S. activities in the Arctic and Antarctic.

And those are questions that the Coast Guard is not well positioned to resolve on its own.

When discussing the possibility of using Canada's support to resupply of defense bases in Greenland, Coast Guard officials told us

that it is important, in their view, for the United States to show the flag.

On the other hand, the National Science Foundation is already leasing a foreign-flagged vessel to resupply its Palmer Station in the Antarctic, and had declined to use the Coast Guard for that purpose.

NSF has also used their foreign-flagged vessel to support the State Department in conducting inspections in the Antarctic.

In summary, Mr. Chairman, our work to date raises a number of critical questions that we think need to be resolved, because they get to the heart of the overall issue of what the Nation's icebreaker needs really are, and the uses to which these icebreakers will be put.

PREPARED STATEMENT

And, again, to come back to the President's report. I think this is the vehicle we might be able to look at to productively resolve some of these questions.

Thank you.

[The statement follows:]

STATEMENT OF KENNETH M. MEAD

Mr. Chairman and Members of the Subcommittee: We appreciate this opportunity to comment on the Coast Guard's plans to procure a new icebreaker. Our work to date has focused on the projected needs for the icebreaker, and, to a more limited extent, on alternative ways that such needs could be met. On the basis of current information, we cannot conclude either that the new icebreaker is needed or that it is not needed. Before the decision to procure a new icebreaker is made, we believe a number of critical uncertainties need to be addressed and resolved. Our testimony today discusses these uncertainties, that relate to whether: the projected needs used to justify the new icebreaker are accurate in view of user agencies' funding and current plans and perspectives; alternative ways of meeting the icebreaker needs have been adequately analyzed; and the current design for the new icebreaker will be the most appropriate for meeting anticipated future needs.

While some reassessment of projected needs for a new icebreaker is warranted, further analyses of needs will not in itself resolve the uncertainties surrounding the decision to acquire a new icebreaker. To resolve the uncertainties, there are important policy decisions that must be made relative to the management, funding, and use of the nation's icebreaker fleet. An excellent forum for addressing these issues is a report the President is required to prepare on the nation's icebreaking needs and how to meet the needs. Although this report was to be submitted to the Congress by October 1, 1988, it has not yet been completed.

BACKGROUND

The Coast Guard's icebreaker fleet has declined, because of age and budget constraints, from five in 1980 to two in 1989. For nearly 10 years, the Coast Guard has been unsuccessful in obtaining the administration's support for funds to build another icebreaker.

The Coast Guard is now requesting funds for a new icebreaker to meet needs identified by a number of users, including the Department of Defense, the National Science Foundation (NSF), the U.S. Geological Survey (USGS), and the National Oceanographic and Atmospheric Administration (NOAA). The Coast Guard estimates the acquisition cost for the new vessel will be about $330 million and the annual operating cost about 57 million. The new icebreaker would have greater research capability than the Coast Guard's existing two icebreakers. On the other hand, it will only be able to break 4.5 feet of ice continuously at a speed of 3 knots, while each of the two existing vessels are able to break 6 feet of ice continuously at that speed. If funds are approved for the new icebreaker for fiscal year 1990, the Coast Guard projects the vessel can be constructed and in operation by 1995.

ACCURACY OF PROJECTED NEEDS

A number of factors raise uncertainties about the accuracy or currency of the projected needs for a new icebreaker identified in two interagency studies that the Coast Guard cites as the basis for its request. These factors include: the impact of funding constraints on the various agencies' abilities to use the vessel; the lack of incentive that current cost-sharing arrangements provide for users to identify only those needs that they can realistically use; disagreements between the Coast Guard and the largest user over key needs; and plans of the two largest users to acquire their own vessels to meet some of their needs. Further, reviewing historical usage and wartime requirements do little to overcome the uncertainties regarding projected needs.

BASIS FOR ICEBREAKER NEEDS

While the Coast Guard uses icebreakers for some of its own missions, such as search and rescue, most—over 90 percent—of the use goes to other Federal agencies on a user charge basis. Priority missions include breaking ice for vessels resupplying Defense bases in Greenland and NSF's McMurdo station in the Antarctic. In addition, the icebreakers provide a platform from which Defense, NSF, USGS, and NOAA conduct scientific research in both the Arctic and Antarctic.

The most comprehensive interagency study of user icebreaker needs, and the one that has been the primary support for the new icebreaker, is a 1984 study that projects a median need of 671 operating icebreaker days annually from 1985 through 2000.[1] The study included input from the primary icebreaker users. The Coast Guard also points to a 1988 interagency study that updated user need projections and that it believes reaffirmed the 1984 study's conclusion that the Coast Guard needed four icebreakers.[2]

The Coast Guard has determined that 144 operating days are available annually per vessel. The figure of 144 days is largely a function of the limit on the number of days the Coast Guard believes a crew should stay away from home port (currently 185), adjusted by the number of days the Coast Guard needs to perform such operational support functions as training (currently 41). By relating the 144 available operating days to the projected 671 needed operating days, the 1984 study concluded that at least four icebreakers are required to meet median projected needs. Because of budget constraints, however, the Coast Guard has elected to request funds for only one new icebreaker at present.

IMPACT OF FUNDING CONSTRAINTS

The projected user days in the interagency studies may not be accurate because of the impact funding constraints have on some agencies' abilities to conduct planned research. Officials at both NOAA and USGS told us that reduced budgets have forced their agencies to deactivate some of their own vessels that were used in the past for scientific research in the arctic regions. Further, NOAA officials are concerned about the impact of 1990 budget cuts on the agency's ability to fund projected usage. And, USGS officials told us that, realistically, the agency would only be able to use about half of its projected days in a good budget year.

While the effect of future funding constraints on projected user needs is uncertain, the 1988 study indicated that this factor could make its total user estimates as much as 50 percent too high. A 50-percent reduction could lower projected usage to about 335 days, which is considerably below the 432 days that would be available with three icebreakers. Under current operating practices, the Coast Guard's existing two vessels can provide 288 operating days. However, later in my testimony I will discuss alternatives that should be explored for increasing the available operating days for the existing vessels.

IMPACT OF COST-SHARING ARRANGEMENTS

Projections of user days may also be inaccurate because current cost-sharing arrangements do not provide incentives for agencies to identify only those needs that will realistically be funded. That is because users do not have to pay the Coast Guard for icebreaker days they say they will need but do not use. Coast Guard officials told us that this situation has sometimes resulted in their icebreakers and

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[1] "United States Polar Icebreaker Requirements Study," Interagency Report, July 1984.

[2] "Report of High Latitude Research Vessel Requirements, 1988," Federal Oceanographic Fleet Coordination Council.

crews remaining idle because user agencies could not fund their share of the costs. This happens even though the fees have covered only 8.5 percent of the operating costs during the past 2 years and none of the construction costs of these icebreakers.

DISAGREEMENTS OVER REQUIREMENTS

Adding to the question of the accuracy of projected user days are Coast Guard and NSF disagreements about requirements for resupplying stations in the Antarctic. First, the Coast Guard believes a backup vessel is required during the resupply of NSF's McMurdo station in case the primary icebreaker becomes disabled or stuck in heavy ice. NSF, however, which must pay for backup services, believes a backup icebreaker is unnecessary. NSF argues that (1) its mission at McMurdo would not be materially affected if the resupply was not completed in any single year, (2) there has been little need for a backup in past years, and (3) there are foreign icebreakers operating in the area that could provide assistance in an emergency. Second, NSF disagrees with the days included in the projections for the resupply of its Palmer station. NSF is now leasing a foreign vessel to accomplish this mission and plans to continue this practice.

USERS ACQUIRING OWN VESSELS

Perhaps the most critical factor raising uncertainties about the accuracy of projected user days is that NSF, which has been the largest single user in the past (nearly 50 percent), plans to obtain its own vessels to perform research in the Antarctic and Arctic. For its antarctic research, NSF is currently requesting bids to lease an icebreaker for up to 10 years, with an option to purchase it at the end of that period. NSF would also like to obtain another vessel for its arctic research. According to NSF, while the agency will still need Coast Guard icebreaking support after it obtains its own vessels, the number of days it will need for research will not be as much as is included in the 1984 and 1988 studies.

NSF also plans to offer space on its vessels to other science agencies when possible. In addition, the Navy has long-range plans to obtain a vessel for its arctic research. If these actions occur, the number of projected user research days included in the interagency studies would be reduced even further.

In addition, NSF officials, as well as officials from the other scientific agencies, have stated that they prefer not to use Coast Guard icebreakers for research. They point out there is limited space and facilities available to support scientists on the icebreakers, and they are uncertain about how much time the Coast Guard can make available for research and when it can make this time available. Further, NSF officials told us their analysis indicates that NSF's use of its own vessels would be more (1) efficient for the type of multidisciplinary research that it requires and (2) cost-effective to the government because they are not constructed to serve the multiple functions of the Coast Guard icebreakers and because they can be operated year round. While the Coast Guard expects to provide improved scientific research facilities on its new icebreaker and is upgrading these capabilities on its two existing icebreakers, NSF officials state the agency will use Coast Guard vessels for research purposes only as a last resort.

HISTORICAL USAGE

Reviewing historical usage of the Coast Guard's icebreakers may not be a helpful means of testing the accuracy of projected future needs. Since 1985, user time has averaged about 475 days annually—considerably below the 671 days the 1984 study projected would be used beginning in 1985. Also, the average usage of 475 days includes over 130 days annually by the NSF and the Maritime Administration that they say are no longer required. Although Coast Guard officials say that agencies have not been asking for days they know the Coast Guard cannot supply, agency funding constraints, disenchantment with Coast Guard vessels for research, and use of other vessels raise significant uncertainties regarding their use of Coast Guard icebreakers. Also, Coast Guard documents indicate that its management is concerned about the utilization of the icebreakers and has considered the elimination of the user charge to improve utilization. Further, Coast Guard efforts to fill its excess capacity for fiscal year 1989, when it has only two icebreakers available, have to date been unsuccessful.

WARTIME ICEBREAKER REQUIREMENTS

While our testimony thus far has dealt with peacetime requirements for Coast Guard icebreakers, it is important to point out that these icebreakers would also be

needed to support military requirements during wartime situations. A Navy position, which resulted from a review by various commanders of a classified Defense consultant's study, is that four icebreakers are needed for wartime purposes. The study itself, however, stated that current requirements and plans support the need for just two icebreakers. Thus, even from a wartime perspective, the need for more than the current two icebreakers is uncertain.

ALTERNATIVE WAYS TO MEET ICEBREAKING NEEDS

Our concern about the accuracy of projected icebreaker needs is compounded because there is insufficient analyses of alternatives for meeting those needs. Alternatives include (1) adding another crew to or changing the home port of existing vessels to increase available operating days or (2) obtaining icebreaking services from other countries.

THREE CREWS FOR TWO EXISTING VESSELS

The Coast Guard may be able to increase available operating days of its two existing icebreakers by assigning a third crew to alternate between them. We noted that NSF uses the multi-crew approach on its current leased vessel and plans to use this approach on its new vessel. Although the third crew approach was originally planned for its two existing icebreakers, the Coast Guard did not implement the plan because of funding constraints.

According to the Coast Guard's icebreaker acquisition project paper, a third crew could add as many as 55 operating days annually per ship, increasing each ship's available annual operating days from 144 to 199, or a total of 398 annual operating days. To achieve this change, however, the Coast Guard would have to modify its current policy of allowing 165 days a year for ship maintenance. The Coast Guard's acquisition paper also indicates that the long-term effects on ship maintenance, sustainability, and other considerations need further study. Although the 1984 interagency study recommended analysis of the third crew-option, such an analysis has not been done.

CHANGING ICEBREAKER HOME PORTS

Moving one or both of the icebreakers from their current home port on the West Coast to the East Coast could also increase available operating days of existing icebreakers by reducing transit time for the Greenland missions by as many as 40 days. Although the Coast Guard and its users have indicated a need for a detailed analysis of the costs associated with the benefits of this option, a formal study has not been done. Coast Guard officials, however, told us that they are informally looking at this option.

USING OTHER COUNTRIES' ICEBREAKERS

Another option for meeting icebreaker needs might be to obtain icebreaking services from other countries. Canada, for example, operates eight icebreakers and might be able to assist in resupplying Greenland bases on a cost-reimbursable basis. In addition, there are four Canadian commercial icebreakers that might be available to support scientific research. Operators of these vessels have already contacted USGS about leasing their vessels.

Although Canadian assistance has been obtained for the Greenland missions in the past, Coast Guard officials told us this practice raises questions about the appropriateness of foreign vessels supporting U.S. activities. Further, a Coast Guard official told us that it is up to the users, not the Coast Guard, to seek out alternatives to its icebreakers. The Coast Guard did, however, conduct an analysis that showed if Canada assisted in the resupply of Greenland bases and NSF supplied all of its own antarctic research needs, 399 of the 671 days would still be needed annually from 1985 through 2000. Thus, this analysis still supports the need for a third icebreaker. However, as the 1988 study stated, the projected user needs could be overstated by as much as 50 percent. Further, the 398 days possibly available with a third crew comes very close to meeting this need.

TYPE OF ICEBREAKER NEEDED

While the design for the new icebreaker was determined, according to Coast Guard officials, after extensive coordination with the users and consideration of available funding, several important questions remain about the appropriateness of the vessel's design.

For example, in addition to NSF's plans to obtain its own vessel to conduct arctic research instead of using the Coast Guard's vessels, the type of icebreaking that it will require to support its research in that area has also changed since the interagency studies were done. NSF officials told us that if the agency obtains its own vessel for arctic research, it will require icebreaking support in the future that is likely to be more compatible with the capabilities of the Coast Guard's existing vessels. These officials said the ability of the Coast Guard's currently planned new icebreaker to meet that need is marginal because of its lower icebreaking capability. According to Coast Guard officials, the estimated cost of building an icebreaker with the icebreaking capability of its existing vessels, but without the proposed research facilities of the planned new icebreaker, is about the same as the cost of the planned new vessel.

In addition, the Coast Guard believes that an icebreaker of its existing type is required for resupplying the McMurdo station, and that another icebreaker of the same type would be required as a backup to complete the mission if the first one breaks down or gets stuck in heavy ice. While the Coast Guard has two icebreakers of the same type, each is scheduled for 165 days of maintenance annually. Having only two of this type of icebreaker lessens the chance that both will always be available to fulfill primary and backup roles. Further, a third icebreaker of this type could be used to replace one of the existing vessels, both of which will be about 20 years old when a new icebreaker would become available in 1995.

ADMINISTRATION REPORT ON ICEBREAKER NEEDS

The Coast Guard's 1988 authorization required the President to report to the Congress by October 1, 1988, on the nation's icebreaking needs and how to meet them. We understand that disagreements between the Coast Guard and NSF, such as those discussed in our testimony, have delayed the report.

In our view, this report could serve a critical role in resolving a number of the issues I have raised today. For example, although the Coast Guard is designated as the single manager for the nation's icebreaker fleet, NSF is acquiring its own icebreaker. While NSF officials have told us that an NSF vessel is a more efficient and effective way of meeting its research needs, Coast Guard officials told us that using its vessels only to break ice makes their operation less efficient. In addition, they noted that unlike the Coast Guard vessels, the NSF icebreaker would not be available for national defense.

Further, questions related to using foreign vessels to support U.S. activities in the Arctic and Antarctic need to be addressed. When discussing the possibility of using Canada to support the resupply of the Defense bases on Greenland, Coast Guard officials told us that it is important for the United States to "show the flag" by using U.S. icebreakers to support activities in these regions. On the other hand, NSF is currently using a foreign vessel to resupply its Palmer station and has also used this vessel to support the State Department in conducting inspections in the Antarctic.

In summary, Mr. Chairman, our work to date has raised a number of critical questions that need to be resolved because they get to the heart of the overall issue of what the nation's icebreaker needs are and how such needs should be met. Answers to these questions are also important, given the costs of a new icebreaker and the nation's reliance on its capabilities over its 30-year life span.

A first step in answering the questions is to resolve the policy issues related to the continued need for a single manager of the nation's icebreaker fleet and the desirability of using only U.S. icebreakers to support U.S. activities in the Arctic and Antarctic. Resolution of these issues, along with (1) a resolution of Coast Guard and NSF disagreements with respect to NSF's changing needs, (2) a reassessment of the impact of funding constraints on user needs, and (3) the completion of studies of alternatives for meeting these needs, should enable the administration to report to the Congress on its unified icebreaker needs and how these needs can best be met.

This concludes our prepared statement, I will now be happy to answer any questions you and the Committee members may have.

ICEBREAKER REPLACEMENT

Senator LAUTENBERG. Thank you very much, Mr. Mead.

Admiral Nelson, you have obviously thought about this problem for quite some time. I had an opportunity to learn from Admiral Robbins and some of the personnel assigned to the northwestern

area about their views on the Coast Guard's need for another icebreaker.

And I come to some similar conclusions to that which the GAO has reported. And I wonder if you, in some kind of summary form, want to respond to the principal things. The questions about whether or not this vessel is a research-oriented vessel, whether or not this is primarily a defense mission, whether or not the icebreaking capabilities of one versus the other are better?

So, if have some kind of summary response, I would appreciate it.

Admiral NELSON. Thank you, Mr. Chairman.

I would appreciate it if I could have a copy of the GAO report so that we could respond completely. I think they made a number of points, probably a number of good points. I think they deserve to be addressed.

[The information follows:]

COAST GUARD RESPONSE TO GAO REPORT

The following is the Coast Guard's response to the GAO's testimony:

In their testimony, the GAO raised a number of issues that are central to the Coast Guard's role in the polar regions. As they stated, there are fundamental policy issues that must be fully addressed before the detailed Coast Guard icebreaker requirements can be accurately assessed. Among these unresolved issues are:

—Whether the nation's icebreaker fleet should be managed and operated by a single agency.

—Whether specialized single purpose icebreakers should replace or supplement fully capable, multipurpose icebreakers.

—Whether foreign flag commercial vessels should be used to satisfy the nation's interests in the polar regions, which have been served in the past by U.S. military vessels.

GAO was limited in scope and time to do a thorough review of this complex subject. This was reflected in assumptions that are not necessarily valid:

—The testimony relies heavily on verbal statements of unidentified National Science Foundation officials which contradict formal NSF documents.

—NSF will fulfill all science requirements with a specialized icebreaker that has not yet been funded nor fully described.

—Icebreaker user agencies are constructing ships which, although they are not icebreakers, will reduce their icebreaker requirements.

—National security and defense interests, including Navy research and the Navy's responsibility for the Antarctic resupply, are dismissed.

—User agency near-term budgets will determine the nation's requirements for icebreakers.

—There is a misconception of the distances involved, the impact of the hostile polar environment, and the consequences of a two ship fleet.

The following is a clarification of some of the issues addressed in GAO testimony. For consistency, they will be addressed in the order in which they were presented.

ICEBREAKER MANAGEMENT POLICY

National policy relative to the management, funding, and use of the nation's icebreaker fleet is quite clear. Since 1965, the Coast Guard has been the operator of the nation's fleet of multipurpose icebreakers. In 1984, the U.S. Polar Icebreaker Requirements Study (PIRS), conducted by the Office of Management and Budget (OMB), Department of Transportation, and user agencies including the National Science Foundation (NSF), recommended that the Coast Guard continue this role. That same year, the Arctic Research and Policy Act (Public Law 98-373) and the Antarctic Marine Living Resources Convention Act (Public Law 98-623) directed that all funds necessary to support icebreaking, except for recurring incremental costs associated with specific projects, be given to the Coast Guard. The Coast Guard Authorization Act of 1984 directed that the Secretary of Transportation prepare plans for new icebreakers ensuring that all appropriate military, scientific, and environmental interests are taken into account.

BASIS FOR ICEBREAKER NEEDS

National requirements for icebreakers were thoroughly analyzed in PIRS. This study group, which included OMB, evaluated and consolidated user requirements and recommended that the "U.S. Coast Guard should maintain a fleet of four icebreakers." As GAO points out, a critical factor in determining the number of icebreakers needed is the number of operating days available per vessel each year. After considering numerous factors including vessel maintenance, training and crew morale, the PIRS study group, *not* just the Coast Guard, determined that 144 operating days would be available annually from each icebreaker.

As GAO stated, a 1988 study by the interagency Federal Oceanographic Fleet Coordination Council (FOFCC), chaired by NSF, reviewed user needs and unanimously approved a recommendation that the Coast Guard "should maintain a fleet of four icebreakers for polar ice escort, logistic support and science support."

IMPACT OF FUNDING CONSTRAINTS

The General Accounting Office report overstates the impact of individual agency funding constraints. While reduced budgets may have forced the National Oceanographic and Atmospheric Administration (NOAA) and the U.S. Geological Survey (USGS) to deactivate some of their own research vessels, none of those vessels were icebreakers.

One of the few constants in the Federal budgetary process is that individual agency budgets will vary. Since icebreakers are long-term, capital assets, this factor is one of the arguments for a single national icebreaker fleet manager, who has the ability to direct assets toward funded research by any agency.

IMPACT OF COST-SHARING ARRANGEMENTS

The current cost-sharing system does not project user agency requirements but only charges for actual time used. The requirement for reimbursement of "incremental project costs" involves only about 13 percent of the annual operating costs of these ships and none of the capital costs, but it is the single largest impediment to *efficient* utilization of a national icebreaker fleet. These expensive capital assets should not be subject to short-term budget priorities of individual users. The best way to manage the icebreaker fleet is to identify the capacity required, then fully utilize that capacity by establishing a better means of setting priorities of projects important to the Nation.

DISAGREEMENTS OVER REQUIREMENTS

The Navy is responsible for the safety of its Military Sealift Command ships during the resupply at McMurdo. NSF has said that the Navy and the Coast Guard are responsible for McMurdo, yet they (NSF) won't support a backup vessel. They cannot speak for the effect on other national interests by a radical curtailment of U.S. Antarctic operations caused by a failed resupply. The potential loss or damage to an oil tanker might be forestalled by a standby icebreaker.

Two years ago, NSF testified that the resupply of Palmer Station was a Coast Guard role. Now the Canadian flag vessel POLAR DUKE, leased by NSF to do research, is doing logistics. Yet NSF claims research requirements justify procuring a dedicated research vessel. Likewise, NSF hasn't used USCG icebreakers in Antarctica for science the past two years. If two Coast Guard icebreakers were deployed to Antarctica each year and fully employed in a program of scientific and logistics support missions, there would be little justification for a special purpose NSF icebreaker. The disagreements generated by NSF are to justify acquisition of a vessel contrary to legislation.

USERS ACQUIRING OWN VESSELS

The GAO apparently has confused ice-capable and ice-strengthened vessels with icebreakers. These two vessel classes are able to work in various ice concentrations, but they *do not* have heavy icebreaking capability. The FOFCC report identified total requirements of 373–380 days per year for ice-strengthened vessels and 316–346 days per year for ice-capable vessels *in addition to* requirements for icebreakers.

While NSF may be the largest single user of Coast Guard icebreakers, relatively little USCG icebreaker time has been in direct support of NSF-sponsored science missions. Analysis of past user days shows that NSF use of USCG icebreakers for science in Antarctic, which would be partially supplemented by their proposed research vessel with icebreaking capability, has accounted for only 7 percent of total

icebreaker operating days. The McMurdo resupply, which would still require USCG icebreakers, has accounted for 31 percent of underway days including transits. Since the icebreaking capability of the proposed NSF vessel is only 3 feet at 3 knots, a USCG icebreaker will still be required on science missions needing access to the areas of heavier ice concentrations.

Mention has been made of an NSF Arctic research vessel. In the past NSF has sponsored no Arctic research aboard icebreakers. This is a *new* requirement arising since PIRS as a result of the Arctic Research and Policy Act. The vessel considered for the Arctic is not an icebreaker and should not be confused with icebreaker requirements. It is a polar research, ice-capable vessel as defined in the FOFCC report and by the U.S. Arctic Research Commission. A USCG icebreaker will still be required to access the areas of heavier ice concentrations.

Finally, the Navy has long-range plans for the acquisition of an *ice-strengthened vessel*, not an icebreaker. This project has nothing to do with meeting icebreaker requirements and will not reduce them.

Much of the NSF criticism of USCG icebreakers has been due to the lack of research support facilities and the conditions in the obsolete Wind-class. These conditions are corrected by the replacement icebreaker design and the present science support upgrades of the Polar-class. Both of these initiatives were developed with active participation of the polar research community. The Coast Guard has gone to extraordinary lengths to inform the users and include them in the process of requirements and design development.

The statement that NSF "will use Coast Guard vessels for research purposes only as a last resort" is contrary to official NSF declarations. NSF's official position on research and USCG icebreakers was declared in an October 23, 1987, letter to OMB, signed by the Director, National Science Foundation. It stated that the "NSF and USCG will plan together, to the maximum extent possible, for the use of USCG icebreakers in support of polar research." At a meeting chaired by NSF, the FOFCC unanimously adopted a policy which reaffirmed using USCG icebreakers for research support, endorsed the Coast Guard's plans to upgrade science support capabilities of existing icebreakers, and supported enhanced research capability aboard the replacement vessel.

HISTORICAL USAGE

GAO is correct in asserting that historical usage of the Coast Guard's icebreakers is not a helpful means of testing the accuracy of future needs. Since 1984, NORTHWIND, WESTWIND, and GLACIER have all suffered from the effects of their age and technological obsolescence and were often unable to get underway for assigned missions.

Additionally, as discussed earlier, the reimbursement system is a further reason for inefficiency and under-utilization. Last minute changes in costs or funding can result in mission cancellation. Opportunities for projects that arise on short notice go unfulfilled due to lack of budget planning. The Coast Guard believes that all funding for icebreakers should be in the Coast Guard budget.

Contrary to GAO testimony, the Coast Guard will have no excess icebreaker capacity in FY-89. By the end of the year, POLAR STAR will have been deployed on polar missions for 165 days, POLAR SEA for 142 days, and NORTHWIND will have made a final contribution of 19 days before her decommissioning. The Polar-class will have contributed 307 Polar-days compared to a 288 day target. Furthermore, one icebreaker, POLAR STAR, will be deployed for 9 months out of 11 beginning in May 1989, and POLAR SEA will be laid up for the remainder of 1989 and into 1990 for urgent repairs. Although POLAR SEA essentially met targeted employment time, she was not employed with total effectiveness during the last Antarctic deployment because no substantive research projects were assigned by the NSF.

WARTIME ICEBREAKER REQUIREMENTS

After considerable analysis, the Navy has determined that icebreaker requirements during wartime can be met by four icebreakers. Further explanation must come from the Navy.

ALTERNATIVES—THREE CREWS FOR TWO EXISTING VESSELS

Before the first Polar-class icebreaker was built in 1976, it was postulated that by adding a third crew to share operation of two vessels, a total of an additional 110 operating days could be generated from two Polar-class icebreakers. It was also assumed that these vessels would need only 112 days of maintenance per year, and

that the Coast Guard would be operating a fleet of 5 icebreakers. Experience has shown that these ships require an average of 165 days per year of maintenance, leaving only 200 days. Since our employment standard for one crew is 185 days per year, the third crew contributes very little time. In the near term even this slight increase is not possible since the Polar-class icebreakers are starting a period of increased maintenance to correct problems resulting from age.

Our small number of icebreakers creates further questions about the feasibility of this multiple-crewing concept. Icebreakers operate in three geographically distant areas and attempts to support more missions with each ship may not even be possible. Also, the polar regions are a very harsh and demanding operating area. Casualties do happen, and a significant casualty has a greater effect on a 2-ship fleet than a 5-ship fleet, 50 percent vs. 20 percent. It is probable that if a casualty occurs, there will be no rescue asset available.

ALTERNATIVES—CHANGING ICEBREAKER HOME PORTS

Changing current icebreaker homeports to any other U.S. port has no effect on the projected operational requirements for icebreakers. All previous studies have assumed that at least one icebreaker would be positioned on the U.S. east coast to support Arctic missions. The U.S. west coast is optimum with regard to supporting Antarctic requirements. A permanent two icebreaker fleet may require an expensive reassignment of one icebreaker to the east coast to optimize availability.

ALTERNATIVES—USING OTHER COUNTRIES' ICEBREAKERS

The use of foreign icebreakers to support U.S. polar programs was also proposed as an alternative. This assumes other countries have available icebreakers, available time, or are willing to build them and provide services to the U.S. It also assumes the U.S. is willing to develop a dependence on foreign assets to satisfy its national interests in the Polar regions for the future.

Internationally, there are now only two large polar icebreaker fleets, Canada's and the Soviet Union's. Informal conversations with Canadian officials indicate that although they will continue to assist us as always on an emergency basis, they are not now able to assume another mission (Greenland). This is not a Coast Guard decision, however, and should be determined by the Administration and Congress.

There is a constant theme throughout GAO's testimony that we only need to seek to meet the nation's minimum stated requirements for icebreakers and that those minimums are overstated. The result of that line of thought, if translated to minimum resources under all contingencies, would be to assure that resources are only available to accomplish the projected absolute minimum tasking even in wartime. The ability to satisfy anything past absolute minimum, despite its importance, in wartime as well as peacetime is precluded due to lack of standing resources. A more reasonable approach seems to be to develop the resources needed to meet average requirements, and use other countries' icebreakers to cover temporary peaks in needs.

TYPE OF ICEBREAKER NEEDED

The General Accounting Office has raised questions about the capabilities of the icebreaker we are trying to build. In particular, they questioned the adequacy of its icebreaking ability and the reasonableness of including significant scientific support capability.

From the very beginning, all users have been intimately involved in the development of requirements and in evaluating the compromises and trade-offs that have resulted in a design that will clearly meet all the objectives that can be reasonably and economically attained. The science community has been actively involved in all phases of development, and remains so to date. A representative referred by University National Oceanographic Laboratory System (UN0LS) will be a part of the actual review process in evaluating contractor proposals. The interagency and science community involvement in the design process culminated in unanimous approval (including NSF's) of the design in a User Council meeting on 15 April 1988.

Our icebreaker is designed to break 4½ feet of level ice at 3 knots. This represents a carefully considered compromise of capability and economy, one of the major factors used in preparing the design. The icebreaker users indicated a requirement that the replacement vessel be able to access about 70 percent of the ice covered waters of the world. This translates to the design's 4½ foot capability. It will have the capability to serve as a backup to the McMurdo mission as GLACIER did for many years, but it is not expected to replace the Polar-class, which are more expen-

sive to operate because of their greater icebreaking capability. The Polar Research Board (PRB) of the National Academy of Sciences, has reviewed both our design and the specifications of NSF's planned research vessel with icebreaking capability. While finding that our design had sufficient capability, the PRB criticized NSF's intended 3-foot icebreaking capability as a major error thus recommending a *4 - 5 foot icebreaking capability.*

Though long discussed, no Arctic research vessel has been designed nor authorized. All proposals for an Arctic research vessel are for an ice-strengthened polar research vessel, with much less ice navigation capability than a fully capable icebreaker. Since NSF's use of icebreakers in the Arctic in the past has been virtually nonexistent, they have little operational experience in the Arctic to make an adequate assessment. The Navy, which has been the primary research user of icebreakers in the Arctic, has supported the icebreaking capability of our current design.

SUMMARY

The present two polar class icebreakers cannot satisfy all of the highest priority polar missions on a sustained basis. There will be times when casualties or maintenance or changing mission requirements will present a situation in which something critical will not be accomplished.

The Nation has important security, economic, and environmental interests in the polar regions. At a time of growing international interest in the polar regions, and the expansion of the polar programs of many nations, we have become much less capable. The Coast Guard has repeatedly been designated as the provider of icebreaking services in support of these interests, but we cannot do so without the necessary resources. The Nation's requirement for additional multi-mission icebreakers is clear. Support of the icebreaker proposed in the President's 1990 budget is appropriate.

I appreciate this opportunity to comment on testimony by the General Accounting Office concerning icebreaker requirements. Past legislation and policy statements have reflected the importance of maintaining heavy icebreaking capability for support of national security, economic and other interests, and have clearly defined the Coast Guard's role. We are experiencing a dramatic reduction in our ability to serve the nation's interests in the polar regions, at a time when other countries are expanding their polar programs. We are anxious to fulfill this important mission, but we cannot do so without the necessary resources. The icebreaker proposed in the President's 1990 budget will be the first step toward the goal.

NEED FOR U.S. PRESENCE

Admiral NELSON. I would like to just summarize in two forms, and first, make an observation.

We talked earlier about the oil spill and activity level and the closing of vessel traffic systems, and we talked in terms of the high volume of vessel traffic in New Orleans, and we closed that VTS down; and the low volume of vessel traffic in Valdez, and we did not close that VTS down.

And, of course, there are other factors obviously. We have a big oil spill in Valdez, and we guess we proved ourselves correct, at least, thus far.

I do not think doing an GAO audit based on activity is what this committee should be looking at. I think you should look at presence. I think you should look at the Nation's need and desire to have a U.S. presence in the Arctic and in Antarctica in the 21st century.

And that is really what we are looking at. Because we are looking at a leadtime of 6 or 7 years.

Right now we have two icebreakers. Two icebreakers. You put a third crew on an icebreaker and you still have two icebreakers. And if one of those icebreakers is down in Antarctica, and the other one is in the yard, you have no icebreaker up in the Arctic or any capability of getting one up there any time soon.

THIRD CREW FOR ICEBREAKERS

Senator LAUTENBERG. Does the third crew add additional days at sea for those two when they are operating?

Admiral NELSON. When we first started to look at a third crew for the two polar-class icebreakers, we thought that would work out well. But we found out that those ships need much more maintenance than we anticipated. And I doubt that we would get more than 15 or 20 days more a year out of the icebreakers.

HOMEPORTS FOR ICEBREAKERS

Senator LAUTENBERG. What is the homeport for the polar-class?

Admiral NELSON. They are homeported in Seattle.

Senator LAUTENBERG. And if they are in Antarctica, that is a long way to go.

Admiral NELSON. Yes, sir; it is a long way from Antarctica to the Arctic if we have to get them back in a hurry.

Senator LAUTENBERG. Might a homeport change for one of these be advisable? Does San Diego have a capacity to work on these vessels?

Admiral NELSON. We would like to have the third icebreaker on the east coast, obviously, because we have an annual Department of Defense requirement up in the Greenland area.

We would prefer right now to leave the two homeported in Seattle because of the tremendous savings in maintenance of homeporting them together.

Senator LAUTENBERG. They are not such unique vessels, are they? I mean, after all, the powerplant is designed——

Admiral NELSON. They require substantial maintenance after they operate in the heavy ice. They take a beating in the ice. And when they come back they require substantial maintenance.

And we have a shore-based maintenance task force dedicated to supporting them.

But what I wanted to say, as far as presence in the Arctic. How should I put this?

ICEBREAKER PRESENCE AND CAPABILITIES

Senator LAUTENBERG. Put it indelicately. [Laughter.]

Admiral NELSON. A couple of months ago we had an incident up in the Arctic, it was called the whale incident. We had two whales up there. And we all watched on the news from Barrow as to how we were going to rescue those whales. We all knew that the Coast Guard did not have any icebreakers up there.

Indeed, the United States did not have any icebreakers up there. And so, eventually, we got the Soviets to come over to help us and others to come over to help us, and they got those whales out.

Sir, that is our trial run. That is our test. That is a test of our contingency plan. It would have been nice up there in Valdez if we had had a spill of just ink that we could run through this cleanup for 10 days, and then dissolve it and go on to other things.

Well, I will tell you, Mr. Chairman, the whales up there were our test. The next time it comes about—and the Soviet submarine that sank—it turns out to be a U.S. submarine up there in the

Arctic; or Pan Am 103 goes down, and it turns out to be in the Arctic; or, indeed, we have an oil spill up there in the Arctic in the ice, and you do not have any U.S. presence to go up there, then we have the real thing.

So we cannot talk about activity level. We cannot talk about science work, and which agency is going to do science work. We should talk about that, but we have to talk about presence.

The GAO report is keyed to whether we should——

Senator LAUTENBERG. The Navy's ownership of this icebreaker would give us a presence.

Admiral NELSON. Yes, sir; that would. But the GAO report, I think, keys to whether we want to have a sixth or a seventh icebreaker. We are talking about two icebreakers, Mr. Chairman; we are talking about presence, both in the Arctic east, around the Greenland area, the Arctic west, around the Alaska area; we are talking about Antarctica: distances, great distances.

We are talking about two icebreakers, not the sixth or the seventh. I want to make that point.

Mr. MEAD. But, I think——

Admiral NELSON. May I just finish?

COAST GUARD'S ICEBREAKING ROLE

Senator LAUTENBERG. Yes, please.

Admiral NELSON. The other issue that I want to talk about is the role of the Coast Guard as the icebreaker motor pool. I think that has to be studied somewhat. Are we going to operate the Nation's icebreakers or are we not going to operate the Nation's icebreakers?

GAO correctly pointed out that they do not do really anything for the Coast Guard. We operate them as a service for the Nation.

And we are expected by Congress to impose user charges. That gives other agencies a tough time. I work with the National Science Foundation, and the National Science Foundation has put out a number of official documents supporting this third icebreaker fully, and indicating they would fully utilize it.

Senator LAUTENBERG. We will have to see that.

Admiral NELSON. The President has also indicated that. And I feel that the GAO people went down to the National Science Foundation and talked to some of their ribbon clerks down there, and they recognize, because they are flush with cash in that particular agency, that they might be able to get another icebreaker. And so they are lobbying for it.

All the GAO is doing is focusing on the Coast Guard's role in icebreakers. I think the study should be expanded, and I have talked to Mr. Mead about this, to include the total icebreaker issue, and the total Arctic presence issue.

I would welcome this committee doing that.

Do I sound passionate on this thing? I am a little bit passionate on it.

Senator LAUTENBERG. I think you sound appropriately committed. The American presence I think is important. I must tell you this, I listened very carefully to your colleagues. And I would have to tell you that I thought it was a pretty intelligent, very complete

review, as I sat with Admiral Robbins and others, we were in airplanes for lots of hours.

If the Coast Guard is going to operate the icebreaker motor pool, to use your description, because it really kind of synthesizes the thing in fairly crisp form, that maybe someone else ought to buy it who has got more money, like the Navy, and turn it over to the Coast Guard and say, OK, now here it is, you operate it.

The fact is that the executive branch has declared that the Coast Guard is the icebreaker agency, but then goes ahead and provides funding for NSF to get its own icebreaker.

Now that is a violation, in my view, of policy. It certainly muddies up the decisionmaking process.

Admiral NELSON. Absolutely.

Senator LAUTENBERG. I think this is a constructive exchange here this morning.

The fact is that I do not hear GAO saying that we ought not to have an icebreaker presence; I hear them talking about making the operation that we have more efficient. Maybe they are wrong, but I think it is appropriate to raise the question.

I think that the Coast Guard has an obligation to respond to that. You have already, in talking about crews. I still have the question about where homeporting takes place.

Again, one day we will have a review of why it is unique to Seattle that the icebreaker service or maintenance is done there. I mean, if San Diego or some other far southern port can handle it, then we ought not to have the vessel out to sea that much longer to make up the distance, a few days on each end. Those are very long, long stretches.

HOMEPORTS FOR ICEBREAKERS

Admiral NELSON. Sir, I would just say that when we had five icebreakers, we had two of them on the east coast, and there was a good mix.

Senator LAUTENBERG. We have not even discussed—I have not discussed the east coast. Certainly we know we need that kind of task.

Admiral NELSON. And we had one in southern California. But as we decommissioned the old ones, it turned out the new ones were in Seattle. And we have not moved to relocate those. We would hope we would not. But we have to see how the budget process comes down this year.

USE OF ICEBREAKERS

Senator LAUTENBERG. Did you want to say something else, Mr. Mead, in response to Admiral Nelson?

Mr. MEAD. Just very quickly.

Certainly the point Admiral Nelson makes about looking at who is really running the Nation's icebreaker fleet is a point that I think is very well taken.

Second, Admiral Nelson's point about a contingency plan for an icebreaker. I should think that that point about the presence, anywhere in the world at any time, for the whales or for whatever casualty, would argue in favor of an icebreaker that was capable of

crunching ice in the 6-foot area, which is what their existing icebreakers are capable of, not a backup icebreaker that would not be able to crunch ice to that degree.

Third, I did want to clarify that when our folks go out and interview people from other agencies, the ribbon clerk in this case was the National Science Foundation's Director of Polar Operations.

We felt that he was a credible and sufficiently senior source to speak for them.

Admiral NELSON. We speak with forked tongue. [Laughter.]

Senator LAUTENBERG. This is getting to be fun, is it not? [Laughter.]

Admiral NELSON. We do, Mr. Chairman, I have to be very honest, have a difference of opinion with our users.

Senator LAUTENBERG. Absolutely.

Admiral NELSON. Both regarding use of our icebreakers and other things.

Senator LAUTENBERG. And it is not the difference with GAO. I think they are highlighting the difference in the user community, the differences in the user community.

Admiral NELSON. We had an oil spill down in the Antarctic, and we had an icebreaker down there. That icebreaker had all sorts of capability, including the ability to be first on scene. They had divers, they had welders, they had enginemen, they had all sorts of heavy lift capability.

And yet they were not deployed by the National Science Foundation, who elected to use their own foreign sources to respond to that spill.

I find that incredible.

Senator LAUTENBERG. I agree.

Well, we are not going to resolve this today.

Admiral NELSON. No, sir.

FUNDING ICEBREAKER ACQUISITION

Senator LAUTENBERG. I am not sure whether the Coast Guard, and I use this in as kindly a fashion as I can, is not kind of the decoy or the attraction in this process to get the job done.

The Navy wants it, but does not want to do it; NSF wants to do it and they want it their way, but they know that the Coast Guard has an especially good appeal these days to the people who sit on this side of the desk, and maybe saying, OK, let us let them get it, and that will take the pressure off of us.

And it is testimony to the skill and commitment of the Coast Guard that you are being positioned that way.

But I wonder whether out of, and this reflects my own thinking, out of a roughly $300 billion budget, that a mere little $250 or $300 million icebreaker could not be kind of included on one of the request forms, and let the Coast Guard have the design and operating responsibility, and not put that kind of pressure on the Coast Guard budget where I think there is more use of the funding available.

Admiral NELSON. Mr. Chairman, if I could just say, when we agreed to take all of the icebreakers back in 1968 and operated them as an icebreaker pool, we agreed within the administration

that any replacements would be funded and operated by the Coast Guard.

And so that is why we are in the process of initiating studies and trying to meet the needs of the Nation.

So that is where we stand.

Senator LAUTENBERG. We might be able to encourage NSF to discourage them from going ahead with their icebreaker until we kind of resolve some of the discussions that we are having here.

Well, with that, we will end this endurance contest that we have been through today. And we will probably get an entry in the Guinness Book of World Records for it.

I appreciate the testimony and the effort that has gone into preparing this. All of you were very, very good witnesses.

SUBCOMMITTEE RECESS

This committee will stand in recess until Thursday, May 4, 10 a.m., at which time we will review the budget for the Federal Aviation Administration.

The hearing is now adjourned.

[Whereupon, at 1:14 p.m., Wednesday, April 12, the subcommittee was recessed, to reconvene at 10 a.m., Thursday, May 4.]

DEPARTMENT OF TRANSPORTATION AND RELATED AGENCIES APPROPRIATIONS FOR FISCAL YEAR 1990

THURSDAY, MAY 4, 1989

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 10:02 a.m. in room SD-134 Dirksen Senate Office Building, Hon. Frank R. Lautenberg (chairman) presiding.

Present: Senators Lautenberg, Byrd, Harkin, D'Amato, and Grassley.

DEPARTMENT OF TRANSPORTATION

FEDERAL AVIATION ADMINISTRATION

STATEMENT OF ROBERT WHITTINGTON, ACTING ADMINISTRATOR

ACCOMPANIED BY:

NICHOLAS S. STOER, DIRECTOR OF BUDGET

WILLIAM POLLARD, ASSOCIATE ADMINISTRATOR FOR AIR TRAFFIC

ANTHONY BRODERICK, ASSOCIATE ADMINISTRATOR FOR REGULATION AND CERTIFICATION

MONTE BELGER, ASSOCIATE ADMINISTRATOR FOR AVIATION STANDARDS

ED HARRIS, ASSOCIATE ADMINISTRATOR FOR AIRWAY FACILITIES

ROBERT DONAHUE, ASSOCIATE ADMINISTRATOR FOR AIRPORTS

MARTIN POZESKY, DEPUTY ASSOCIATE ADMINISTRATOR FOR NAS DEVELOPMENT

OPENING REMARKS

Senator LAUTENBERG. We will call the Subcommittee of Transportation of the Appropriations Committee to order.

You have your troops lined up, Mr. Whittington.

Today we will be hearing from the FAA as they defend their $7.4 billion budget request for fiscal year 1990.

BUDGET REQUEST

The budget request reflects a nearly 14 percent increase for operations, a 41-percent increase for facilities and equipment, and a 3-percent increase for R&D, and about a 4-percent reduction for grants to airport programs.

According to the FAA, all of the key indicators of air traffic activity will continue upward in the coming years; there will be more flights and more passengers using our system. And, of course, we are encouraged by that. But when we look at what is happening in our aviation system we see a disturbing mosaic that forces us to ask whether we really have the operational resources and are exercising sufficient oversight to assure that the system is as safe as it should be.

We see that our aviation security system is flawed. There are breakdowns in quality control and aircraft manufacture and maintenance. Aircraft are disintegrating in the air because of age or other defects. There is a shortage of experienced pilots. Our air traffic control facilities are understaffed in the FPL's, the fully qualified controller areas. We are short other FAA safety-related personnel. The FAA inspection team is being forced to do more and more.

In the meantime, we see the demise of one of our major air carriers. And more and more passengers are becoming captive to limited competition at hubs. In fact, if the trend continues, we should change the name from hubs to webs, and the public is getting trapped.

AVIATION SECURITY

I want to come back to the issue of aviation security.

On March 14, this subcommittee held a hearing to look into the events surrounding the bombing of Pan Am 103. Almost 2 months later we are still asking a lot of the same questions, questions like who knew what, when they knew it, how that information was relayed to and acted upon by our air carriers.

We need to have those answers. As chairman of this subcommittee and as a Senator representing 28 families victimized by that December bombing, I am committed to pursuing these answers through whatever means can best accomplish these goals.

The bombing of Pan Am 103 has also forced us to take a hard look at our aviation security system overall. It has raised a host of issues, but there is one more basic, more fundamental than the rest. And that is who should be in charge. In my view, we need to answer that question before we can proceed with any sort of meaningful, long-term improvements.

We have to come to grips with a harsh reality. The terrorists who killed 270 innocent people on December 21 were not after Pan Am, they were after America. The attack was against our country. It was designed to affect our foreign policy. It was to intimidate us as a nation.

And when our national interests are threatened, who is supposed to respond? When our interests were threatened in the Persian Gulf the President sent the Navy there to protect the flow of oil, not only ours, but other countries as well. He did not tell the oil companies to go hire their own soldiers and buy their own ships and man their own navies. It was construed to be a matter of national security.

Now we face another challenge, a challenge to America's sovereignty, to American citizens' freedom.

But are we really prepared to deal with that threat now? When our aviation system is intimidated by terrorists, should private airlines protect our safety? Should the people manning the gates be private employees with training that meets only a private standard?

I raise the basic question. Is it time for a change?

And if we decided that this should be a matter of public law enforcement, then we are also going to have to decide which public agency should have the job.

These decisions are going to have a big impact on how we spend on aviation security.

NAS PLAN

Aviation security is not the only challenge that faces FAA. For the facilities and equipment part of its budget, FAA is requesting almost $2 billion, a 41-percent increase over last year. Now, much of these funds are to continue to develop, buy and install new equipment and systems which are part of the NAS Plan Modernization Program. The budget request, however, also shows substantial needs in other infrastructure items, which are not part of the NAS plan. We believe this is a direct result of past budgetary policy that postponed the inevitable just as the Reagan-era budgets did in many other domestic programs. For the air traffic control system we are forced into the ridiculous situation of having to spend millions to procure both 1960's technology and state-of-the-art technology just to keep the air traffic control system operational, until the new NAS plan systems are on line.

We make similar decisions in defense with bombers. The question is: What do we do in the interim? Do we keep spending money on something old that we know is going to be obsolete or do we get wholeheartedly into the new plan? You have to have a lot of confidence to make that decision.

The NAS plan is almost 10 years old, but FAA does not have the resources to get it completely under control. FAA is forced to award contracts to some contractors to monitor other contractors. The development problems experienced in virtually every one of the major systems have been very costly, in terms of dollars and time. I am concerned that FAA may not be properly organized to do the job all the way through to the end. And we cannot afford to lose more time because of bureaucratic roadblocks. Therefore, I believe there should be total vertical integration of FAA resources responsible for the NAS plan, from the engineers involved in design and development to the field personnel who have to install the equipment and the systems and to make sure that they are operating properly.

Given FAA's budget of approximately $7.4 billion, it would rank very high on the list of Fortune 500 companies. And now it must act like one, given its charter, and must carefully control the dollars it has appropriated and build the Nation's confidence in our aviation system.

Now, we look forward to hearing from FAA this morning. We welcome Mr. Whittington, who is acting administrator, and hope

that you will be able, Mr. Whittington, to give us some insights so that we can clear up some of the questions that we have.

You know that we would like a summary of your written statement, but your full statement will be inserted in the record, and we ask you now to go ahead and give your testimony, if you want to quickly run through your colleagues' names and what they do, you could do that, too.

STATEMENT OF ROBERT WHITTINGTON

Mr. WHITTINGTON. Thank you very much, Mr. Chairman.

And I would like to take a few minutes to summarize my statement.

The colleagues here at the table with me, to my far right, Anthony Broderick, who is the Associate Administrator for Regulation and Certification; Monte Belger, the Associate Administrator for Aviation Standards, Monte has the security operation under his jurisdiction; to my left is Nick Stoer, the Budget Director for the FAA; Bill Pollard, who is the Associate Administrator for Air Traffic; and Marty Pozesky, the Deputy Associate Administrator for NAS Development.

And we do look forward to addressing the issues that you have raised.

Congress and the administration have a shared responsibility to provide a strong budget for the FAA's activities. The Nation is approaching a half billion airline passenger trips a year. Some airlines are reporting record profits and other manufacturers have record levels of orders for new quiet and efficient aircraft.

The FAA's program funding requirements are almost a mirror image of the demands that are being placed on our agency. We must assure that the Nation's airports and airways remain the safest in the world and that we provide the capacity and safety oversight that the traveling public demands.

AVIATION SECURITY

And as you know, I understand you did have the meeting with the Secretary the other day on the issue of security, we had a series of successful visits in Europe last week on security matters. Mr. Belger was on that trip and can address that even further. And we are close to issuing our security regulations for tightening up the security bulletin process and requiring airlines to have explosive detection equipment at airports.

FUNDING REQUESTS

Now, with respect to our budget, aviation is one of the President's top priorities. He is seeking a 17-percent increase in the 1990 budget for the FAA, including, as you mentioned, a 41-percent increase in facilities and equipment funding to support the National Airspace System. The budget increase also provides for more capacity at airports and in the air traffic control system, enhanced safety, enhanced security here and abroad, and modernization of the FAA's enormous network of facilities and navigational aids.

Recent investments in the FAA, we feel, have yielded very important results. The number of controllers and safety inspectors are at a record high level. All of our safety indicators are at the best levels in history.

The NAS plan, after 8 years of investment, is now putting new or modernized facilities on line at a record rate. We will commission 500 new facilities this year alone and many innovative approaches to expanding capacity are being deployed.

FISCAL YEAR 1989 SUPPLEMENTAL BUDGET REQUEST

Despite a lot of success, however, everything is not going smoothly. We require a supplemental appropriation of $40.7 million in fiscal year 1989. We have had to slow down hiring, defer some training, take other program reductions such as reducing overtime and restricting employees' relocations since last October.

These actions are needed to accommodate over $120 million of mandatory, unbudgeted costs imposed on the FAA in fiscal year 1989, such as the January pay raise cost of $70 million; the FAA's share of our employee-increased health insurance of $32 million; random drug testing costs of $5 million; and a host of other costly surprises, like the intense cold weather in Alaska, the need to reopen our control tower in Valdez on an emergency basis, and it looks like we will be continuing that for some time.

PAY DEMONSTRATION PROJECT

Now, one important issue that we would like to discuss with you at this hearing is the need for us to initiate a 20-percent pay bonus demonstration project to attract and retain experienced personnel at selected difficult-to-staff facilities. This includes Chicago, New York, Los Angeles, and Oakland.

In our view, this is a last-resort attempt on our part to bring these facilities to the levels of staffing that they require and to stem the extremely high turnover at these facilities. We have tried a wide range of recruiting and reassignment options: farm teams to encourage reassignments in the local area, local recruiting, special cross-training incentives, and others.

But when we look at what is happening since we have announced the pay demo, all the signs are very encouraging. We are getting applications now from the highest level in air traffic control, the radar controllers who want to go to New York, Chicago, and Los Angeles. We never had that before.

What we are trying to do, as you know, is to bring already trained radar controllers into these facilities. We have the same problems in maintenance and we have the same problems up in New York and Los Angeles with some of our flight standards people. So we really need some support from this committee on the pay demo. I think it is just a top priority with us.

NAS PLAN

Our F&E budget request for continued improvements to the National Airspace System is $1.95 billion. We view the NAS plan as an extremely successful, well-managed effort. The original esti-

mates of 8 years ago show that today's overall cost estimates are within 10 percent of the original plan.

And although original schedules, I must admit, were optimistic, we have had no failures, and delivered equipment is performing exceedingly well at this time.

Now, our high-priority work in fiscal year 1990 includes projects such as the acceleration of the advanced automation system contract with IBM to $337 million; award of the voice switching and control system contract; continuation of the interim support plan, which will increase capacity or extend the life of existing NAS plan equipment until it is replaced. We have a host of other important NAS plan programs and we could talk about those later.

We urge the committee to recommend the full amount that we have requested for F&E. Since 1982 the cumulative effect of congressional F&E budget reductions, $1.4 billion, has created a bow wave. Each year of reduced funding has increased the amount of funding needed in future years. We are at the point where contract options for virtually all major NAS plan contracts are now coming up for award. And our plans call for the bulk of the NAS plan systems to be deployed between fiscal years 1990 and 1995. We have reached the point where budget cuts can no longer be accommodated through schedule adjustments and reallocations among other programs. Our flexibility is gone. Budget cuts in fiscal year 1990 will force contract terminations or very costly renegotiations.

TRAINING NEEDS

I would like to also just highlight the largest program increase in our operations budget. And that is our training budget. FAA has one of the largest work forces in the Federal Government and many of the jobs we perform are unique to the FAA. We must provide ongoing training for most of the people we hire. Our training requirements exceed those of any other nondefense agency.

Mr. McArtor mentioned last year, and I would like to say again, that we have a new training initiative that we initiated in fiscal year 1989, called Flight Plan for Training, to revamp the agency's training program in response to the implementation of the NAS plan. I think it is one of the highest priorities we have. We are behind the curve, and I would like for you to support this program. We can speed up our training of highly qualified people a lot more quickly than we can with our current training program.

If you will just consider training as one of our top priorities, we would certainly appreciate it. We are asking for an increase of 185 positions and $41 million in the operations budget, and approximately $20.4 million in the F&E budget to support this initiative.

RESEARCH, ENGINEERING AND DEVELOPMENT

And last, I would be remiss if I did not highlight our research, engineering and development request of $165 million. We are getting a lot of payoff from R&D in flow control, terminal collision avoidance system, human factors research, and better software techniques for our air traffic control radars and computers. The RE&D program is essential to our program.

PREPARED STATEMENT

Rather than extend my remarks, I would like to summarize by emphasizing that our requests for $7.7 billion in budget authority and 52,429 positions is necessary for the FAA to continue modernization of the air traffic control system and to handle issues of aircraft safety: domestic and international aviation security, steadily increasing aviation traffic, and growing international aviation activity.

We ask for your continued support and your leadership.

And my staff and I would be happy now, Mr. Chairman, to respond to your questions.

[The statement follows:]

STATEMENT OF ROBERT WHITTINGTON

Thank you, Mr. Chairman. I am pleased to appear before you and the other distinguished members of this subcommittee to present the Federal Aviation Administration's (FAA) fiscal year 1990 budget request.

FISCAL YEAR 1990 BUDGET REQUESTS

Aviation issues are among the top priorities in the President's budget. In spite of the overall restrained budget climate, the President is seeking a total of $7,743 million in budget authority for FAA in fiscal year 1990, a 17 percent increase over fiscal year 1989. We also have requirements for a 4 percent increase in direct full-time positions for a total of 52,429 positions. These increases are necessary for the agency to continue modernization of the air traffic control system and to handle issues dealing with aircraft safety, domestic and international aviation security, steadily increasing aviation traffic, and growing international aviation activity.

We have two major increases in fiscal year 1990—the long-planned increase in our facilities and equipment (F&E) budget has arrived, and our operations appropriation increase is needed to handle a wide variety of new challenges facing the agency. In addition, while not a large budget increase, I will want to highlight what I believe are very responsive changes in the R&D Program. Before I address those key initiatives, I want to first briefly highlight some recent accomplishments and to stress how essential prompt congressional action is on our fiscal year 1989 supplemental.

RECENT AND PLANNED ACCOMPLISHMENTS

A few examples of our significant progress this past year include:

SECURITY—Since the Pan Am 103 tragedy, the level of congressional and public concern about security has increased dramatically. FAA has developed new technology to detect explosives and we awarded a contract last August for six thermal neutron analysis (TNA) systems. They will be deployed this year. Secretary Skinner recently placed significant emphasis on this program by requiring deployment of explosive detection systems such as the TNA device at the busiest airports in the United States and overseas. We are continuing to increase our specialized staffing to deal with the increasing security problem including assigning additional FAA security specialists to provide greater surveillance in Europe.

SAFETY PERFORMANCE—All key safety indicators improved in 1988 over the previous year. We saw a 33 percent reduction in reported near mid-air collisions, a 13 percent reduction in operational errors, and 20 percent reduction in pilot deviations.

RECORD TRAFFIC—The number of days that the air traffic control system experienced over 110,000 operations increased from 55 in fiscal year 1987 to 134 in fiscal year 1988, and an all time daily record of 119,430 operations was set last August.

PRODUCTIVITY—Aircraft situation displays for better flow control will be installed in the traffic management units at all 20 enroute centers by the end of October 1989. This will further improve our capability to reduce air traffic delays.

SAFETY—Fiscal year 1988 saw sharply focused efforts on aviation safety. The impact 1988 initiatives address aircrew performance, airline accountability, airport development, airspace capacity, advanced technology, aviation awareness, air transportation security, and agency effectiveness. We expanded and elevated the Office of

Aviation Safety whose primary responsibility it is to promote safety and to monitor FAA's aviation safety programs.

SAFETY—We conducted special safety and efficiency reviews in Chicago, San Diego, and in the Northeast corridor. We established a National Aviation Safety Data Center, changed flight procedures on the east coast and in the Los Angeles terminal control area, conducted an in-depth safety review of Texas Air's operating airlines, and moved forward in addressing the issue of aging aircraft.

CAPACITY—Major studies were conducted at 13 airports to look at airport design and procedures to increase capacity. Additional studies will be conducted in fiscal year 1990. New airports are planned or under construction in Austin and Fort Worth, Texas, and Denver, Colorado.

CAPACITY—Two parallel and converging runway monitor systems will be tested and evaluated at Memphis and Raleigh-Durham in fiscal year 1989 which should ultimately lead to increased capacity at approximately 30 airports.

CAPACITY—An airspace capacity design project was completed in the Los Angeles Air Traffic Control Center. Additional airspace capacity design projects were begun in Denver, Dallas and Chicago.

AAS MODERNIZATION—The acquisition phase contract for the advanced automation system was restarted in November 1988 after a contract protest had suspended work for three months. Hardware and software development for the initial sector suite and related equipment are underway that will provide new automated controller work stations.

CONTROLLER COMMUNICATIONS—Factory acceptance testing and the design competition phase of the voice switching and control system (VSCS) will be concluded in 1989 leading to a production award in early fiscal year 1990. The VSCS will replace the technologically obsolete system we have today and provide reconfiguration capabilities that are necessary to accommodate the advanced automation system.

WIND SHEAR DETECTION—The terminal Doppler weather radar production contract was awarded in November 1988. This system will allow timely and accurate detection of hazardous aviation weather conditions near airports.

CAPACITY—Expanded capabilities at the New York Tracon will be commissioned in April 1989 with new "intelligent" radar displays that will enable the facility to handle the increasing traffic in the New York area.

OVER OCEAN CAPACITY—The oceanic display and planning system (ODAPS) will be commissioned in the summer of 1989 at the Oakland center to provide oceanic controllers with an automated situational display and conflict probe capabilities.

WEATHER SERVICES—Three contracts were awarded in February 1989 for commercial direct user access terminal (DUAT) service. The DUAT service, which is scheduled to become operational in September 1989, allows licensed pilots to use personal computers to obtain local and route, weather, aeronautical briefing information, and the ability to file or amend domestic flight plans. This national service will be provided to authorized users at no cost in the 48 States 24 hours a day.

TCAS—TCAS II equipment was certificated for use on two Northwest Airlines MD-80's in September 1988. These aircraft have been flying in normal revenue service and evaluation was completed in March 1989.

We are prepared to elaborate on these initiatives during these hearings.

FISCAL YEAR 1989 SUPPLEMENTAL

There have been a lot of recent accomplishments, but we need your help to assure that this progress continues.

We are requesting a supplemental appropriation of $40.7 million for operations in fiscal year 1989. Enactment of the supplemental is critical to us. We have absorbed over $100 million unbudgeted costs in fiscal year 1989 associated with the 4.1 percent pay raise, increased health insurance costs, drug testing, unexpected communications rate increases, and recently, significant costs resulting from cold weather damage and the massive oil spill in Alaska. FAA's unbudgeted health insurance costs alone have risen over $30 million in the last year and a half. Absorption of these costs has forced us to be very conservative in the rate of hiring of inspectors, technicians where we effectively had a hiring freeze for the last six months, forced cutbacks in training, and maintenance, and reduced our mission-related travel and employee relocation levels below fiscal year 1988, which itself was a tight year.

The major initiatives covered by the supplemental are the unbudgeted costs of random drug testing and increased drug interdiction support; long overdue national recruitment and training initiatives; $14 million to help defray some of the increased cost of employee health insurance which is being covered by the cutbacks I

just mentioned; and the pay demonstration project in high cost and hard-to-staff facilities scheduled for implementation on June 18, 1989.

As you know, the House Committee on Appropriations voted to drastically reduce the size and scope of the pay demonstration project. While we understand their concerns, we urge the Senate subcommittee's support for the project in the fiscal year 1989 supplemental and the fiscal year 1990 appropriation bills. The pay demonstration project attempts to solve critical and chronic recruitment and retention problems at the designated crucial facilities. Reducing the scope of the project could result in a continued inability to staff these facilities.

FACILITIES AND EQUIPMENT (F&E)

The fiscal year 1990 F&E request for improvements to the National Airspace System (NAS) is $1.95 billion. We view the NAS plan as an extremely successful, well managed effort. The original estimates of seven years ago show that today's cost estimates are within 10 percent of the original plan. Although original schedules were optimistic, we have had no failures and delivered equipment is performing exceedingly well.

High priority work in fiscal year 1990 includes: Acceleration of the AAS contract with IBM to $337 million, planned award of the VSCS contract, the interim support plan, which will increase capacity or extend the life of existing NAS plan equipment until it is replaced; FAA structures and equipment associated with the new Denver airport; equipment to begin consolidation of four Tracons into a single facility in the Los Angeles basin area; and the planned expansion of the Dallas/Fort Worth airport. We also have extensive funding requirements for several different radar programs—the long range radar, Nexrad, terminal Doppler weather radar, and ASR-9 airport surveillance radars. We are expecting to commission 500 new facilities during fiscal year 1989. In fiscal year 1990, delivery will have begun on 73 percent of the hardware for the NAS plan programs. An additional 206 positions are needed to manage the installation activities associated with the transition of NAS equipment from the various contractors factories to the FAA field facilities.

We appreciate the efforts of this committee to provide funding for the National Airspace System (NAS) plan and its growth during the 1980's has been vital to the ATC system. However, despite this growth, the cumulative fiscal restraint on F&E exercised by Congress over the past few years places heavy pressure on the fiscal year 1990 and future budgets. A number of programs scheduled for fiscal year 1989 have slipped into fiscal year 1990, while some work scheduled for fiscal year 1990 will be deferred until fiscal year 1991.

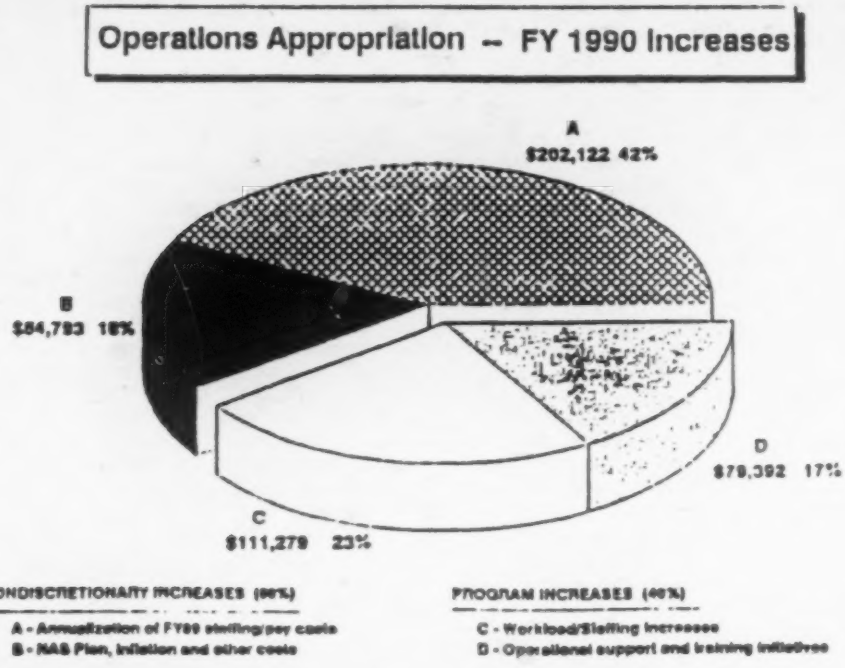
We urge the committee to recommend the full amount that we have requested for F&E. Since 1982, the cumulative effect of F&E budget reductions ($1.4 billion) has created a "bow wave"—each year of reduced funding has increased the amount of funding needed in future years. Virtually all major NAS plan contracts have already been awarded based on highly integrated and complex schedules. The planned options for additional articles of equipment under those contracts are now coming up for award. We have reached the point where budget cuts can no longer be accommodated through schedule adjustments and reallocations among programs. Our flexibility is gone. Any future budget cuts will force contract terminations or costly renegotiations. Our plans call for the bulk of the NAS plan systems to be deployed between fiscal year 1990 and fiscal year 1995.

Concern has been expressed in the past about the unobligated balances in the F&E account and we have made special attempts at reducing that balance. We will obligate substantially larger amounts in fiscal year 1989 and fiscal year 1990 than in previous years. However, I must emphasize that virtually all of the F&E programs are planned to be fully funded. Full funding means that each system bought is completely funded through commissioning, not necessarily that the total number of systems required are bought in one year. also, obligations occur over several years. Initial obligations go toward production contracts with obligations in subsequent years for site engineering, installation, spare parts acquisition and development of training materials. In other words, even though some funds are displayed as unobligated, all such funds are clearly marked for specific tasks in coming months.

OPERATIONS

The fiscal year 1990 operations request is for $3.9 billion, an increase of about 14 percent or $477 million over last year. As you can see in the pie chart in my testimony, 60 percent of the increase is non-discretionary associated with pay and staff annualization, inflation and support for new facilities being commissioned. About 40 percent of the funding increases are related to major program initiatives. The posi-

tions increase is required, not only to continue our hiring efforts for air traffic controllers, aviation safety inspectors, security personnel, and field maintenance technicians, but also for logistics, legal, training, and administrative support positions. We have reached a point where our support positions need to catch up with the significant increases in operational positions over the last few years.



One of the largest areas of program increase in our operations budget is related to training. FAA has one of the largest work forces in the Federal Government and many of the jobs we perform are unique to the FAA. We must therefore provide ongoing training for most of the people we hire. Our training requirements exceed those of any other non-defense agency. FAA began a new training initiative in fiscal year 1989 called "Flight Plan for Training" to revamp the agency's training program in response to the implementation of the NAS plan. The NAS plan will result in new technologies and procedures which will change the way in which FAA employees do their jobs. Controllers will have a new display with added capabilities which will change requirements for training. Airway facilities technicians will need new training as the FAA moves increasingly to newer solid state technologies, and new repair and maintenance procedures. In fiscal year 1990, an increase of 185 positions and $41.1 million in the operations budget and approximately $20.4 million in the F&E budget is requested to support new training initiatives.

The airway facilities technician work force has been increased to meet NAS plan implementation requirements. The technician work force is expected to reach a level of 8,900 in fiscal year 1990, an increase of 254 over the fiscal year 1988 level.

During fiscal year 1989, we are working to increase the controller work force to 16,800. We will continue to work toward our goal of 17,495 by the end of fiscal year 1990 by operating the academy at full capacity, which means running two shifts each day for a total of 16 hours per day. As you are aware, we did not meet the full performance level (FPL) goal for fiscal year 1988. Our shortfall in last year's goal hampered our ability to reach the mandated goal of 10,832 for fiscal year 1989. We anticipate having 10,300 FPL's by the end of fiscal year 1989.

The general aviation and air carrier inspector work forces are experiencing significant growth consistent with our multi-year plan to increase inspections and enforcement activities. In fiscal year 1988 the combined inspector work forces reached a level of 2,093 and the fiscal year 1990 budget proposes 2,620 inspectors by September 1990.

FAA recently inspected the quality control systems at nearly 100 U.S. and foreign aircraft and parts manufacturers and suppliers. Begun last fiscal year, this program

has proven to be timely, in view of the tremendous growth in new airplane orders, the resulting production pressures, and the manufacturing quality problems we have recently uncovered at a number of production facilities. We agree with the conclusions of a recent General Accounting Office review of this program, that our manufacturing oversight activities were inadequately staffed. As a result of our in-house review, also known as operation snapshot, our budget request includes an increase of 60 positions to begin to redress this staffing deficiency and to provide engineering support to our aging aircraft activities.

We are requesting an increase of 120 positions for the Civil Aviation Security Program. The additional staff will aid in the inspection of airports and air carriers, development of critical terrorist threat information through intelligence analysis, protection of those traveling in air commerce against criminal and terrorist acts, prevention of the use of aviation in drug trafficking, and accelerating the processing of security background checks on applicants for air traffic controller jobs. In addition, funds are being requested in our R&D account to continue our research efforts in the area of explosives detection especially in the area of thermal neutron analysis (TNA) devices.

An increase of 124 positions for attorneys and related staff to reduce the backlog of the enforcement work initiated by safety (both general and air carrier) and security inspectors. In addition, some of the legal positions will be used to augment staffing in the rulemaking and regulatory area, where projects are frequently very complex and congressionally-mandated rulemakings have increased.

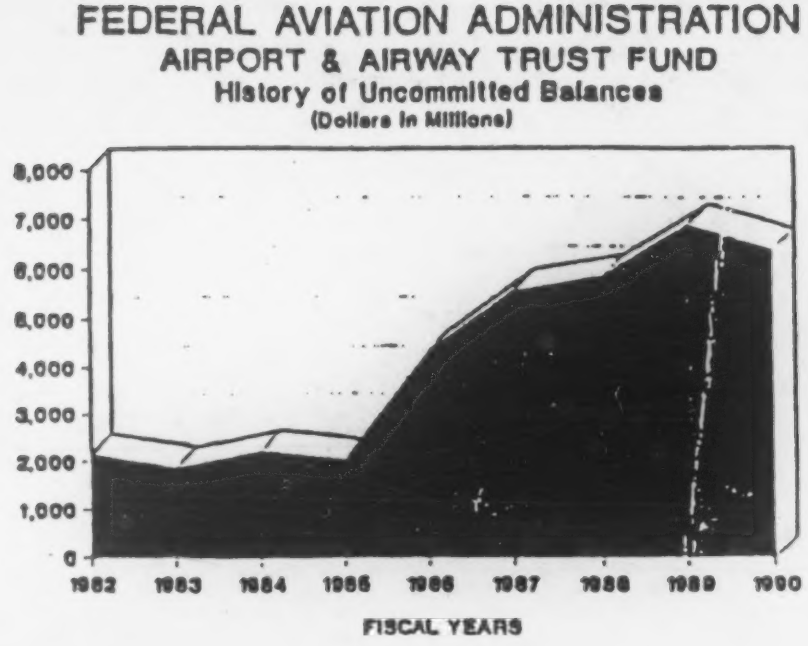
The budget includes a request for 40 additional positions for the airports programs. These personnel are needed to accomplish increasing workload in high profile activity areas such as implementing and initiating important airport capacity enhancement efforts to reduce delays, an expanded certification program to cover airports served by commuter airlines, a new general aviation safety program dealing with complex environmental and national system planning issues. Increased staffing is also needed to support the development and construction of the new Denver and Texas airports. Additional contractual funds are also requested to support studies and simulation activities associated with increasing airport capacity.

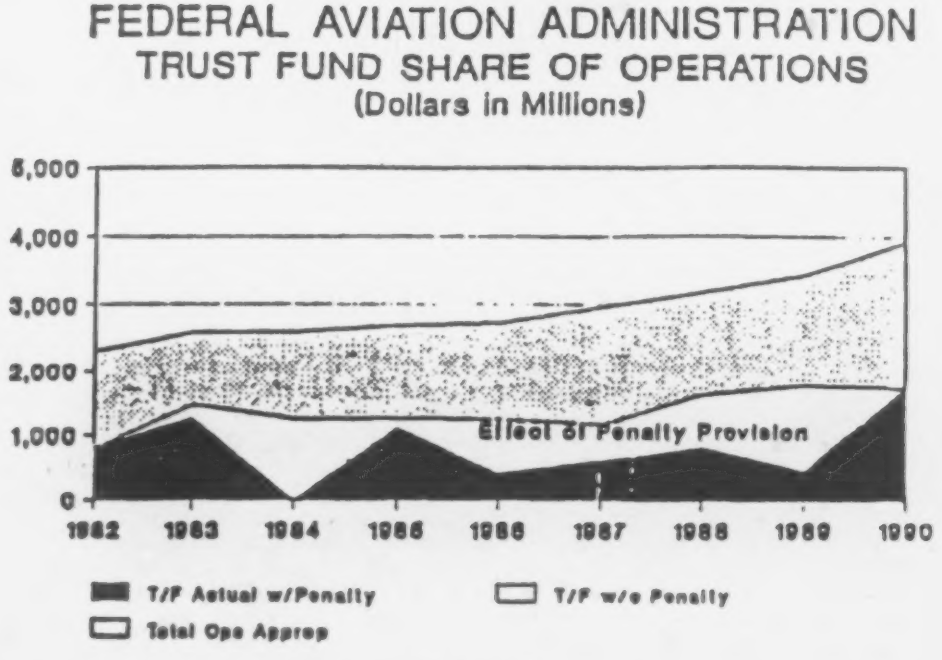
An increase of $28.7 million and 80 positions is requested for the NAS logistics support program in order to provide depot level NAS equipment repairs and field level supply support for both new NAS plan equipment and installations and existing NAS systems until they are replaced. More specialists and procurement managers are required due to increased workload and to avoid problems of fraud, waste, and abuse.

TRUST FUND ISSUES

Aviation user taxes and expenditures from the airport and airway trust fund are authorized by the Airport and Airway Safety and Capacity Expansion Act of 1987. The act authorizes trust fund spending for airport grants through fiscal year 1992 and airway facilities through fiscal year 1990. In addition, FAA operations costs of up to 50 percent of the amounts provided for airport grants, facilities and equipment, and research, engineering and development may also be financed from the fund.

However, with our proposed funding for capital programs, the penalty provision in the 1987 act reduces trust fund financing of operations by $2.50 for each $1 that appropriations for airports, equipment, and research, fall below the authorized levels in the legislation. This penalty requires an offsetting increase in the general fund subsidy of aviation costs while amassing a surplus in the trust fund. The two following graphs in my testimony demonstrate that the general taxpayer has subsidized civil aviation by over $5 billion since fiscal year 1982. This, together with interest earnings, accounts for the $6.9 billion uncommitted balance in the trust fund. Past efforts to repeal the penalty clause have failed. To correct the inappropriate subsidy, our fiscal year 1990 budget proposes that not withstanding the penalty provision, that $1.7 billion will be financed by the trust fund. We believe that operations trust fund financing should not be contingent on the level of funding for capital programs. Instead we propose to set the trust fund share of operations equal to the estimated cost of operating the air traffic control system. In fiscal year 1990, this equates to about 44 percent of operating costs. These actions are expected to reduce the uncommitted trust fund balance to $6.4 billion.





TAX TRIGGER

It is important to point out that since FAA's capital accounts were not appropriated at the levels requested for fiscal year 1988 and fiscal year 1989. Trust fund financing fell below the 85 percent trigger point an automatic reduction in aviation user fees effective next January. We believe that the "trigger tax" concept is ill-advised, and will deny the airport and airway trust fund revenues that are vital to the modernization of the Nation's aviation system. We urge Congress to repeal the

tax trigger. Otherwise, trust fund revenues will be reduced $1.2 billion in January 1990.

RESEARCH, ENGINEERING AND DEVELOPMENT

Our fiscal year 1990 request for research, engineering and development appropriation is $165 million, a 3.1 percent increase ($5.0 million) over the fiscal year 1989 enacted level.

This request represents a new focus for the R,E&D Program. During the past year we have listened to Congress urge a revitalized R,E&D Program which would be more responsive to the needs of the aviation community and allow the timely introduction of new technology. Our R,E&D plan submitted to Congress last month establishes a new direction to the FAA's research and development efforts. We received extensive user feedback from the aviation community at the 1988 R,E&D conference and will incorporate their ideas along with the advice of our newly established research advisory committee as we prepare for the 1989 plan.

Despite our plans for redirection, our record in fire safety research is outstanding. We believe that technology and standards developed by FAA were a significant factor in the survivability of the crash in Dallas last May. Our traffic management software has been instrumental in reducing delays in the face of ever growing traffic levels.

We have been responsive to the Aviation Safety Research Act of 1988 by establishing a new R,E&D structure which places the responsibility for planning, management, and control of R,E&D programs under a single organization. We have established a review, monitoring, and evaluation process which includes an internal requirements review procedure. The fiscal year 1990 request shows increased emphasis in the areas of aging aircraft, human factors, and simulation modeling. We are developing the internal capability to achieve our goals with the technical support of Mitre, Lincoln Laboratories, CAMI, and Transportation Systems Center and through cooperative agreements with NASA, DOD, colleges and universities.

There has been a great deal of concern about the aging of the transport fleet and its effect on airworthiness. To address this problem, the FAA hosted an international conference on aging airplanes in June 1988, to exchange views and discuss concepts for assuring the continued airworthiness of the aging airplane fleet. Approximately 400 representatives of airlines, manufacturers, aviation industry groups, and civil airworthiness authority organizations from more than 12 countries participated. The Air Transport Association and Aerospace Industries Association, responding to FAA's recommendation from that meeting, established a working group to address the problem for each aircraft manufacturer. One result of this working group is a recommendation for mandatory corrective action and to replace dependence on mandatory inspections for fatigue cracks with redesign and replacement of structure. The formal report containing this recommendation was delivered to the FAA at the end of March 1989, and we expect similar products from other working groups in the next few months.

The FAA also has contracted with a team of experts in structure, maintenance, and human factors to review the FAA's Aging Airplane Program and make recommendations to FAA management. This oversight team has reviewed the FAA's activity on the Boeing 737 airplane and is now reviewing the Boeing 727. Along with the issuance of airworthiness directives and increased FAA inspection of aging aircraft, both FAA and industry intend to vigorously pursue a preventive maintenance program in this area.

AIRPORT GRANTS

An obligation limitation of $1.35 billion is requested for grants-in-aid for airports. Although this is a slight reduction below the fiscal year 1989 level, and $350 million less than authorized, our ability to fund most critical improvements will be enhanced under our proposal to increase the discretionary amount available in fiscal year 1990 for funding major airport capacity projects. We propose a minimum $250 million for capacity, safety, security and noise projects. This funding will be directed to primary commercial airports and their associated relievers for projects which have a significant effect on our overall national air transportation system capacity.

By 1996, 32 of the 50 largest airports could experience more than 20,000 aircraft-hours of delay. Projected 1996 operations at these 50 airports are expected to increase 26 percent. Estimates of the value of time lost by the traveling public are $3.2 billion. The FAA is pursuing a number of efforts to increase the capacity of the National Air Transportation System. These include enhanced airport capacity through construction of new runways and airports; optimizing existing airport and

airspace capacity through airport improvements and efficiencies in air traffic routing; and research into new procedures and technologies which can expand capacity.

AGENCY PLANNING

The FAA has had a new agencywide strategic planning process underway for more than a year. This process is an ideal opportunity for the Administrator to work with the agency's top management and the aviation community to set long-term direction for the agency. The strategic plan will identify issues and alternatives as required for FAA's program plans and will have common integrated objectives. This planning effort will be invaluable to us in working with Secretary Skinner's efforts on a national transportation policy.

Regulatory process improvements have been the focus of a high-level task force. This task force was composed of the top management within the FAA and a representative of the Office of the Secretary which looked at the FAA rulemaking process within headquarters. They developed a number of recommendations including: increasing regulatory staffs in the legal and policy evaluation areas; automated status reporting and monitoring; increased use of automation; early top management involvement in resolving significant issues; using face-to-face meetings to avoid the sequential concurrence procedure; periodic top management review of generic problems, priorities, resources, and program direction; and increased early and continuous communication with the Office of the Secretary.

These recommendations are expected to result in a significant increase in efficiency for the regulatory process. One of them, using face-to-face meetings to avoid the sequential concurrence procedure, has already been implemented by revising the process for FAA headquarters review of regional rule projects. A principals briefing is now held 10 days after the project is transmitted to Washington. It is conducted by regional technical and legal staff, and all substantive and editorial problems are resolved at the time of the meeting. This process has made it possible to quickly receive Washington concurrence on completed rulemaking documents.

This concludes my statement, Mr. Chairman, and I ask for your continued support and leadership, and the support of this committee for our budget request. I will be happy to respond to any questions the members of the subcommittee may have.

SECURITY POLICY

Senator LAUTENBERG. Thank you very much, Mr. Whittington.

I want to discuss, first, on the operational side, the security policy. The administration has apparently decided that procurement and placement of the costly equipment, like TNA machines, are the responsibility of the private sector. And this is seen by many as a significant policy decision.

Was there ever a proposal by FAA or DOT to have the Federal Government take the lead in this?

Mr. WHITTINGTON. No, sir; the Federal Government, as you know, did take the lead in the research and development of the equipment. The position has always been that it would be up to the carriers to fund this equipment, and they could do that through a special surcharge.

Senator LAUTENBERG. Was this policy decision primarily dictated by budgetary concerns, do you know?

Mr. WHITTINGTON. No; I do not really believe that it was, Mr. Chairman. I think it is a matter of principle and other types of programs that the carriers have funded similar to this through a special tax to the traveler.

Senator LAUTENBERG. Did you participate in any of the discussions on this decision, this policy as I see it, a policy decision?

Mr. WHITTINGTON. Did I personally? Yes; I participated in discussions such as this because, as you know, there would be several different options. And in these discussions that we have had, not only with the FAA staff here, but with those from the Secretary's office,

I do believe that there was an agreement on the position that the administration has taken on the funding issue.

SECURITY POLICY

Senator LAUTENBERG. At what point do we admit that our Government has the ultimate responsibility of protecting our citizens? We did not turn over their security to private sources in other situations. In the case of the Achilles Lauro, did not leave it to private sources to get the perpetrators of the crime; we injected Government fully and forcefully, and everyone agreed with that, I think.

I find it hard to believe that we are not saying, look, the first thing we have to do is get this equipment out there, whatever equipment we can get out there, to protect our air travelers. And then, to discuss how and who pays for this equipment without declaring a policy firmly in advance.

I do not know that there have been any reviews of this by Congress. I do not think so. I have had discussions with the Secretary, for whom I have a great deal of respect. But the fact is, I hope that there is no delay in getting this equipment out there based on who ultimately is going to be the responsible party for paying. The passenger ultimately pays the cost, as we know, one way or the other.

So I hope that this does not result in a policy by action, rather than thought first, or review first.

FAA has numerous functions: aircraft readiness, air traffic control, AIP. By contrast, the FBI, the CIA, other intelligence and counterterrorism agencies, have thousands of people devoted to intelligence gathering and law enforcement. Do you know whether there has been any thought given to FAA's security threat assessment function to the FBI or some other Government agency?

Mr. WHITTINGTON. Yes; I do believe that we have been working with the other agencies on that. I can let Mr. Belger expand on that. But let me first say that I certainly agree with you, that there should be no delay. The funding issue should not be holding up the program. And I can assure you that we have a lot of action underway. And I know the Secretary has talked to you; and Mr. Belger can expand on that, too, but there will be no delay as a result of where we come out on the actual funding.

Mr. BELGER. There has been a great deal of review and deliberations between the FAA and the other Government organizations that we deal with in the intelligence arena. As you know, the FAA is not an intelligence gathering organization, we are basically a user. We do have a very professional staff that works with the other intelligence organizations.

The Secretary obviously was very concerned about the FAA's ability to receive, analyze, and disseminate security information. He sent a team of his personal representatives to Europe in March. Their primary objective was to review, particularly the FAA's, but not only the FAA's, the Federal Government's ability to receive, analyze, and disseminate security threat information as it pertains to passenger safety and civil aviation.

I am sure the Secretary will share with you the results of that report at the appropriate time.

We have also had a great deal of discussion with the National Security Council. The Secretary has personally discussed the subject of intelligence dissemination and gathering with the President.

The National Security Council has been tasked to take a fresh, overview look at the way the process works, who does what, where the responsibilities are. I think that is going to result in some improvements.

Senator LAUTENBERG. The question, Mr. Belger, is whether or not there was any serious discussion about transferring or assigning these security threat assessment reviews to another agency, who, are in many ways better equipped to analyze these.

Mr. BELGER. The fundamental process of assessing the information is not one done by the FAA in a vacuum. We make that assessment in coordination with and after a lot of dialog with the other intelligence organizations. It is not an assessment made by the FAA in a vacuum or unilaterally, it is a deliberative process.

We clearly use the other organizations and rely upon them as a basis for the assessment.

THREAT ASSESSMENTS

Senator LAUTENBERG. I assume that we would not be violating any confidence here if I asked you how many people we have doing threat assessments, and how many of these threats do we get in a given period?

Mr. BELGER. In our intelligence division in our security organization, we have now about a dozen people in that intelligence division. We have very professional intelligence analysts, many of whom got their start in other organizations. They have very good contacts with the other organizations. We receive literally thousands of bits of information, pieces of information or transmissions from other organizations on a yearly basis.

Our responsibility is to, with the other organizations, focus on the intelligence information that pertains to civil aviation. If it is classified, as it usually is initially, we distill it to a point where it can be disseminated to the airlines for their use. We do that with the other intelligence organizations.

Last year that process resulted in 27 bulletins that we sent out to the airlines.

Senator LAUTENBERG. Having sifted through thousands of pieces of information, a dozen people total in that division, it does not sound like a lot of people to do that job. And once again, I have to come back to the question that I asked, and that is, is the FAA's security division job ultimately the issuance of the bulletin? I mean, if you have a dozen people, you do not have the personnel that are able to go out and do the investigation, not with a dozen people total. And some of those people have other responsibilities besides threat assessment.

Mr. BELGER. Well, no, sir, not really. I mean, their responsibility is to work in that intelligence division. That is their specialty, that is their job. They do not go out and do the types of inspections that our other inspectors do. They are headquarters staff; they work daily, on a 24-hour basis with the other intelligence organizations.

We do have plans. I am committed to doing a lot of things that will improve our process. One of which, and this was recognized in the Secretary's review, would be to beef up that organization, to refine our ability to communicate electronically, maybe with the airlines; maybe even to have an FAA presence in some of the other organizations.

SECURITY BULLETINS

Senator LAUTENBERG. Well, we are going to continue to pursue this question with the Secretary, on behalf of those who died in Pan Am 103, their surviving families, and those who are concerned about threats in the future, to see whether or not we are just taking more in FAA than we can handle professionally. And we will have a chance to talk about that again with the Secretary.

Prior to the Pan Am bombing, and Secretary Skinner's April 3 announcement, which you are familiar with, did FAA regularly require countermeasures in its security bulletins? When you sent out a bulletin, did you ask for something to be done?

Mr. BELGER. No, sir; we did not regularly do that. And I think that is something that we have recognized and fixed now.

In the past, if I could use prior to Pan Am 103 as the past, our security bulletins were viewed as advisory information to the airlines. We did not, to the extent that we are now, prescribe precautionary or countermeasures in response to that threat. We did on occasion. There are records where we did that.

Senator LAUTENBERG. Did you require that they acknowledge the bulletin?

Mr. BELGER. No, sir; we did not. We do that now.

Senator LAUTENBERG. How do you ensure that an airline does what it ought to in response to a threat?

Mr. BELGER. Well, that is a fundamental issue that we face all the time. We ensure that through our inspections——

Senator LAUTENBERG. But you cannot inspect for threat. Someone places a phone call that is considered more than a crank call, you do not do an inspection. An inspection of what? An inspection of the baggage, inspection of the security arrangement? What do you inspect?

Mr. BELGER. For a particular bulletin we would prescribe, if the existing countermeasures were not adequate to meet the threat that was prescribed in that bulletin, we would, and have in the recent past, prescribed to the airlines that they do additional things.

Senator LAUTENBERG. You are talking about prospectively now?

Mr. BELGER. Yes.

Senator LAUTENBERG. Because in the past you sent out a notice and said, OK, look, we understand that there is a device that is being used as a detonator in carrying explosives. So in the past we did not do it.

Mr. BELGER. That is right.

Senator LAUTENBERG. The FAA responsibility was to simply send out notice and hope that the airlines—hoped, really, that the airlines did the right thing.

Mr. BELGER. As a general rule, that is correct.

Senator LAUTENBERG. Was there anything that would indicate to the FAA that they ought to probe further, in terms of a specific threat to a flight that would tell them that they ought to just check it a second time? Or was there nothing in the process to do that?

Mr. BELGER. Well, it was in the process. The record will show that there were cases where we did direct that certain additional countermeasures be put in place.

We did not do a good, fundamental job, though, of requiring the carriers to do additional things specifically directed of threat information that we have previously provided to them. We do that now.

Now, if I could address one other thought that I think you raised. You mentioned the other types of bomb threats, the specific bomb threats that might go directly to the carriers or to airport operators. There are specific requirements in the regulations for the airlines to follow when they get those types of threats.

For example, if it is a specific threat against an aircraft or a flight, we require the carriers to do certain things. And we follow up on those. When we learn about the threat, we follow up to make sure that the carrier did what they were supposed to do.

FOREIGN CARRIERS

Senator LAUTENBERG. What control does FAA have over foreign-flagged carriers with regard to requirements for countermeasures?

Mr. BELGER. Our control basically comes under part 129 of the Federal Aviation Regulations. We have required, since the mid-1970's, foreign airlines to comply with part 129. We have the authority, under the regulation, to require foreign airlines to comply with our requirements in the United States and to meet our regulatory requirements from their last point of departure into the United States. We have that authority under part 129.

One of the real fundamental issues that we are faced with now, and this was a common theme in our discussions with the foreign governments last week—I had the opportunity to accompany Secretary Skinner—is the question of extraterritoriality: the fundamental questions of the U.S. Government's ability to direct foreign airlines or foreign governments, if you will, in many cases the airline and the government are pretty hard to separate, to direct those entities to do things outside the United States.

Our success in this area, in my opinion, is going to come through some multinational agreements, some very intense negotiations, a lot of cooperation with foreign governments. This was a common theme in our discussions with the foreign governments.

If I could tie that in to a response to your first point. It is clear to me that the Federal Aviation Administration of the U.S. Government has got to take a more active and aggressive role in dealing with foreign governments to facilitate U.S. airlines' ability to comply with our requirements outside the United States. We intend to do that. I think the Secretary set the tone for that last week. We are going to do that through a variety of ways, not the least of which would be increasing our FAA staffing overseas at some strategic locations.

Senator LAUTENBERG. So what we talk about, and I hear you very clearly, is that we intend to make changes, and we have learned something from this past experience?

Mr. BELGER. Yes, sir; I think that is fair.

Senator LAUTENBERG. So right now we really do not have much choice or much authority, or much opportunity to change things if the our Government feels that a foreign-flagged carrier is not doing enough?

Mr. BELGER. The authority we have is tempered by international treaties and conventions. It is also tempered by bilateral agreements that we might have with the countries. It is not as simple as dealing with our U.S. airlines.

Senator LAUTENBERG. We could not deny them landing rights, could we?

Mr. BELGER. Yes; I think fundamentally, ultimately, that is an option.

Senator LAUTENBERG. But that is not an FAA decision, is it?

Mr. BELGER. It would be something that would involve the State Department also.

FLIGHT CANCELLATION

Senator LAUTENBERG. I am going to now call on my colleague, Senator D'Amato, from New York, the ranking member of this subcommittee.

Senator.

Senator D'Amato. Thank you very much, Mr. Chairman.

If I might, I would like to pursue just for a moment a legal question as it relates to the authority of the FAA to cancel flights. I believe that that is not clear. And that is why in S. 596, we included a provision that would clearly give to the FAA the ability to cancel flights, that is of our own carriers abroad, if there is a feeling of a threat notification and if the FAA feels that there is a threat.

Does the FAA have express authority to cancel a flight where a credible security threat exists against it? And what is the legal source of this authority if you do?

Mr. BELGER. Yes, sir; we do.

If I could go through a quick scenario.

Senator D'AMATO. Just give me the legal source.

Mr. BELGER. The legal authority that we would use should we get to the point where a threat exists and in our opinion an effective countermeasure could not be put in place, and a carrier refused on their own to cancel a flight, the authority that we would use would be a general authority in the FA Act. Basically there are three sections that we would rely upon: 316(a), 313(a), and section 609.

Senator D'AMATO. Give me it to me again, the three sections, slowly?

Mr. BELGER. They are 316(a), 313(a), and section 609.

Senator D'AMATO. Do you want to make a brief analysis of those?

Mr. BELGER. I wish I were qualified, but I really do not have the legal background to do that.

Senator D'AMATO. OK.

But your counselor has advised you that, pursuant to those three sections, you feel that the FAA has the authority to order a flight not to leave?

Mr. WHITTINGTON. We do, Senator. Our counsel is here if you would like——

Senator D'AMATO. Well, what I would like, if counsel would give to us, in order to save time, and so that we do not get into the legal parlances, if you could submit to us in writing to the committee justification for feeling that you do have that authority, and that therefore it would not be necessary to specifically spell out another section. And if you do think that clarification should call for better codification of that, let us know.

Mr. WHITTINGTON. We will do that.

[The information follows:]

AUTHORITY TO CANCEL A FLIGHT

In the event that an air carrier refuses to cancel a flight after being advised by the FAA that a security threat cannot be adequately countered, the FAA has the authority to require that the flight be cancelled. Sections 313(a), 316(a) and 609(a) of the Federal Aviation Act of 1958, as amended would provide the general statutory basis for this action.

Collectively, these provisions would authorize the FAA to take several possible actions. Section 313(a) authorizes the Administrator to perform such actions as are deemed necessary to carry out the provisions of the Federal Aviation Act and to perform the powers and duties under that Act. Section 316(a) requires the Administrator to prescribe such reasonable rules and regulations requiring, *inter alia*, such practices and procedures as he may deem necessary to protect persons and property aboard aircraft operating in air transportation (which includes foreign air transportation) against acts of criminal violence and aircraft piracy. Section 609(a) allows the Administrator, if he determines that safety in air transportation and the public interest requires, to issue an order amending, modifying, suspending, or revoking in whole or in part, any air carrier operating certificate.

The FAA to date has not been faced with the posited situation. However, if an air carrier refuses to cancel a flight that the FAA determines to be the object of an insurmountable security threat, the FAA, relying on this statutory authority, could take one of the following actions to prohibit the operation:

1. Issue an emergency amendment to the air carrier's operations specifications.
2. Issue an emergency amendment to the air carrier's security program.
3. Issue a cease and desist order.

Senator D'AMATO. Thank you very much.

PAY DEMONSTRATION PROJECT

I am very much interested in the question of our 1989 supplemental and the pay demonstration project. The administration asked for $40.7 million, the FAA supplemental, which included $7 million for a pay demo project covering hard-to-staff areas. And, Mr. Chairman, you know, that really takes in the New York metropolitan area. And there was a 5-year project which would pay a 20-percent premium to controllers and other skilled personnel.

Now, if we take our region, in New York, we have only 50 percent of the full-performance level, FPL controllers. We are down to 50 percent of what we had in 1981. That is only 165, when we had 325, and 400 are needed.

Flight operations are up from 1.7 million to 2 million per year, controllers work 6 days a week, and you have had to take extraordinary measures bringing back retired annuitants to help out due to staffing constraints and work pressure.

Now, that leads to all kinds of problems: fatigue, operational errors, and we are talking about safety in the sky. How necessary do you feel that the New York project, or the demonstration that would be carried out in New York and in other similar areas, how important do you think that is?

Mr. WHITTINGTON. Senator, I think it is extremely important. And as I have indicated, we looked at many different ways to solve the staffing problem at these busy facilities. And we are talking about bringing in experienced people. And it did not just start with the strike. I think, looking back in history, we have had these problems at these same locations for many, many years. And we simply, I think, until this point, have not come up with a solution to the problem.

I am looking for good results, and certainly I would like our controllers and maintenance people to have the opportunity to, instead of working overtime, have some time off just like the rest of us. So it is extremely important to the FAA that the committee support that particular proposal.

Senator D'AMATO. And let me ask you, Mr. Administrator, what you are trying to do now is to get the full performance level controllers, the experienced ones, into these areas where the workload is extremely heavy, where you need the best with experience, and you cannot attract them to come to these areas, which are rather high-cost areas, whether it be Chicago, New York, Los Angeles, et cetera, and hubs of activity; is that not correct?

Mr. WHITTINGTON. That is absolutely correct. And we have other facilities that are problem facilities for some of the same reasons, but these are selected ones, this is a demonstration project, and I certainly need your support for that program.

PAY DEMONSTRATION PROJECT

Senator D'AMATO. Well, you know, Mr. Chairman, I think it is important for us to set a record here. I cannot, for the life of me, understand how our colleagues in the House, acting on this supplemental in committee, and it is in committee, have taken this program, and I do not know what they are trying to do, have slashed it from the $7 million down to $2 million, cut it from a 5-year program to a 2-year program—I can understand if you said, all right, let us have a 2-year demonstration—and then, somehow, substituted their judgment that only a 10-percent premium, not 20 percent, be sufficient. And then say, we will only do it in Chicago at O'Hare.

Now, that 10 percent premium, and I have discussed it with the FAA people, is certainly not enough to be effective. It will be absolutely devastating to those controllers who work in Los Angeles, in New York, in other high-density areas, to see that they are excluded.

And I would hope that we, Mr. Chairman, could exercise the strongest urging, with all due collegiality, to our colleagues on the other side when this comes to conference.

This is a matter of safety. This is a matter of attempting to give to the FAA the tools.

And you and I have worked, you have been a champion in this area, at attempting to get more controllers, attempting to get better training, attempting—and just when we are at that point, and we are playing catchup, when they come to us and say, look, we are trying to address these critical problems.

I think that the staff and others have not given to our colleagues on the House Subcommittee of Appropriations the proper advice and recommendations. And I look forward to working with you, because I know you have been the leader in this area.

Senator LAUTENBERG. I appreciate what your views are. They are exactly mine. There is not a decent company that operates across the country that does not recognize in order to get good people to transfer to high-cost areas they have to do something to attract them.

To say to someone, OK, you are now going to get a promotion to a stressful environment where you can work 7 days a week if you are lucky and maybe keep your family together. We are going to, effectively, cut your pay because it is going to cost you more to live.

You are absolutely on target with that. And we will have a chance to deal with the House language when that comes through. Because I could not agree more with Senator D'Amato, who is focusing on the reality of the situation. How do we get people to come into these areas where it is going to cost them a lot more to live and under more stressful conditions, and say, but take it out of your own pocket, your Government is broke?

We will do something about that together.

ESSENTIAL AIR SERVICE PROGRAM

Senator D'AMATO. I look forward to working with you on that, Mr. Chairman.

Mr. Chairman, I have one other concern. On May 1 Secretary Skinner wrote to Senator Byrd offering to find a way to fund $6.6 million EAS, that is the Essential Air Service Program that is so important for smaller communities.

In upstate New York, we have Watertown, Ogdensburg, Messina, Saranac Lake, Lake Placid, and Plattsburgh. And they are just small communities that rely on this service. And it would be calamitous if that EAS were to be cut off.

Now, if a supplemental is not passed by July, will all EAS subsidy payments cease nationwide, or will the FAA proceed with its proposed rule that would stop some but not all payments to EAS air carriers?

Mr. WHITTINGTON. Senator, I do not know the answer to that. That program is administered by the Secretary's office under the functions transferred from the CAB. I will get you the answer to that question.

I know that Secretary Skinner has indicated support for the program, but I am just not sure of how that is being handled right now.

Senator D'AMATO. I would appreciate that, and I know that the chairman would.

[The information follows:]

At the present rate of subsidy expenditures to maintain current service levels at EAS communities, we estimate that the $25 million appropriated for fiscal year 1989 will be exhausted after July 28, 1989. Without supplemental funding, we will be required to shut down the EAS program at that time.

In order to give carriers sufficient notice to allow for an orderly shutdown and to avoid extensive claims by subsidized carriers for additional subsidies to cover shutdown costs, the Department must notify the carriers by early June that they may terminate service at the EAS communities, if no additional funding has been made available by that date.

Senator D'AMATO. I know that Senator Byrd is very, very much concerned. And we are, in New York, because where we have Watertown, with the huge development that has taken place in that area, and the much increased air traffic, the servicemen who are coming into this area for the first time, their dependents. You do not drive to Watertown from downstate; it is not a day trip, it is not 2 hours or 3 hours or 5 hours or 7 hours. You do not drive to Messina. You cannot just cut off these regions.

Mr. WHITTINGTON. I agree.

Senator D'AMATO. And so it is very, very important. And we are talking about, in total dollars, a rather small sum. And to cut off thousands of people from necessary, vital transportation links, I just think we have to find a way to see to it that this is continued. And I would hope that you would express my concern, as well as that of the chairman of the subcommittee and the chairman of the full committee to Secretary Skinner.

Mr. WHITTINGTON. I certainly will do that. And I am very familiar with the area and agree with your comments on the need for air transportation in that area.

Senator D'AMATO. Thank you very much, Mr. Chairman.

Senator LAUTENBERG. Thank you very much, Senator D'Amato.

I, too, have discussed with the Secretary the need to continue this service so that we do not isolate the communities. For many communities it is the only way out without spending inordinate amounts of time, either in buses or in cars.

We have been joined now by Senator Grassley. And, Senator Grassley, do you have a statement or any questions that you would like to ask at this point?

Senator GRASSLEY. The only thing is I am not quite ready. I just have some other meetings that I had to attend. Are you ready to adjourn?

Senator LAUTENBERG. No; I have several questions.

Senator GRASSLEY. Would you go ahead and ask them?

WEAPON AND BOMB DETECTING SYSTEMS

Senator LAUTENBERG. Certainly. Thank you very much.

Mr. Whittington, in the past we have been assured that your budget contained sufficient funds to proceed at pace with the development of weapon and bomb detecting services.

However, after the Pan Am bombing, it was reported that you had ordered a quicker delivery of six TNA's. Was not this program already on the fastest possible track prior to the Pan Am bombing?

Mr. WHITTINGTON. Well, prior to that time, the ongoing work was in the R&D area, and we were looking for further testing and enhancement to the program. After the accident we did expedite the procurement.

Senator LAUTENBERG. In your view, is the TNA system the best available that we have got, either foreign or domestic, in bomb detection systems?

Mr. WHITTINGTON. Yes, it is.

Senator LAUTENBERG. Have we looked at other nations' development and product?

Mr. WHITTINGTON. I will let Monte answer that, because I know in France that discussion did come up, and we are doing some work with them at the present time.

Senator LAUTENBERG. Mr. Belger.

Mr. BELGER. We do think that the TNA system is the best available at the current time. There are other countries working on systems. The French are working on a system. We learned some more details last week, and we are talking to them. They told us that they thought they might have a prototype system available in a year. It works a similar principle as TNA, but it has some refinements that they are working on. We committed to continue to work with them.

We are also, daily—I was in Boston 2 days ago visiting with another manufacturer—we are daily looking at all the types of the technology that we can learn about. And, frankly, we hope that the emphasis on the decision to require the use of explosive detection systems will stimulate the industry to go even faster to develop even better technology.

Senator LAUTENBERG. Let me ask you the question here that may sound a little cynical, but I want it on the record. Is it possible that some of our friends, people with whom we have a lot of transportation interface, aviation in particular, would suggest that we ought to hold up installation of our system while they get theirs to market?

Mr. BELGER. We did not run across that type of attitude last week in our meetings.

Senator LAUTENBERG. Now, we talked about France. Do you feel they are willing to move ahead with getting our equipment in there? How about other countries?

Mr. BELGER. Let me just recapture, quickly, the five countries that we visited on this particular subject. There was a general consensus to learn more about our technology. There are specific obstacles in each country to place this type of equipment and use their licensing requirements, health considerations, they just do not have enough information at the moment. We are committed to giving them that information.

The British have agreed in writing—I got a letter today that followed up on our meeting—an agreement in principle to place our second unit that the FAA is purchasing at Gatwick Airport later this summer. We will begin intense negotiations with the British Airport Authority to make that happen.

The Germans have sent people over to visit the manufacturer in California. They are very receptive to the idea.

The Swiss were very receptive to the idea. They want to learn more about the technology. It is my opinion that they are sincere in wanting to use the best available technology.

The French are working on their own, however, I did not gather a sense that they would not seriously consider our equipment also.

WEAPON AND BOMB DETECTING SYSTEMS

Senator LAUTENBERG. We are being a little delicate here. Were they resisting?

Mr. BELGER. No, sir.

Senator LAUTENBERG. Were they embracing it?

Mr. BELGER. No, sir; not at all.

Senator LAUTENBERG. Were they embracing our system? Were they saying, hey, let us go, this thing works, let us just get it in here and protect those people?

Mr. BELGER. As I said, they are anxious to learn more about our system. We do not have a commitment from them.

SECURITY POSITIONS

Senator LAUTENBERG. They were not enthusiastic about installing it, they were anxious to learn more about it.

The fiscal year 1990 budget includes funds for 120 additional security positions. According to the Secretary, 40 of those people will be stationed overseas. If we see the problems as being principally at foreign airports, why do we not put more people overseas on what we call the front lines?

Mr. BELGER. Well, we are going to put as many people, as quickly as we can, to do the job. We currently have 14 positions in Europe, in Brussels and Rome. We intend to augment that staffing significantly in the next several months.

Again, this is a subject which we talked about in each of the countries we visited. We talked to each embassy about this subject. We want to have, as the Secretary said, in the neighborhood of 40-some FAA inspectors in that area of the world. Some of those people will be much more specialized, if I can use that word, and will primarily provide a liaison point between our U.S. air carriers and the foreign governments.

It will be an individual who, as I said before, would be looked upon by the U.S. airlines as the facilitator and the negotiator if you will, if the State Department will allow me to use that kind of word, to facilitate the implementation of the U.S. requirements in those foreign countries.

Senator LAUTENBERG. So they would not be doing direct security threat analysis, that kind of thing?

Mr. BELGER. No, sir; that would still be a function we perform here.

Senator LAUTENBERG. Would this request for people overseas actually include people doing threat assessments?

Mr. BELGER. Well, let us define threat assessment. These people would work very closely with the embassy staffs, they would also work within the U.S. Government structure with their aviation counterparts in foreign governments.

But I do not really anticipate that they would have the responsibility for doing the assessment. I think that needs to be in the right intelligence channels at the right level.

Senator LAUTENBERG. We have been joined by several of my colleagues.

Senator Grassley, you are next. If you would like to try to confine it to 10 minutes, is that enough time?

AIRPORT FUNDING

Senator GRASSLEY. Without any problem at all.

Mr. Whittington, I would like to pursue a line of questioning about the State involvement with the administration and the expenditure of Federal funds.

For several years, if Iowa or other states requested more direct involvement in administration of Federal funding for general aviation airports, I am sure you are aware of that.

We believe that general aviation airports should be administered by the States consistent with Federal guidelines, just as the States administer Federal highway, transit and rail funds, they can and should administer general aviation airport funds.

In pursuit of this goal, many States, including my own State of Iowa, are working through their State legislatures to secure what are referred to as channeling acts requiring Federal preapplication for AIP funding to be channeled through the appropriate State agency for approval.

This process is going to allow more efficient coordination of Federal State dollars for airport development.

So my question to you is if you have, and I hope you do, a position concerning more State involvement in the selection of airport funding priorities?

Mr. WHITTINGTON. I have always supported that concept. I have Bob Donahue who heads up our airport program who can bring you up to speed on where we are. But I think it is a tremendous proposal, and I look for many States to want to get into that program.

Senator GRASSLEY. I do not think we have to go into a lot of detail, but you are at least saying that from your standpoint, you do not oppose the efforts of States that are trying to accomplish this goal, and you will work toward that end?

Mr. WHITTINGTON. Absolutely.

ESSENTIAL AIR SERVICE PROGRAM

Senator GRASSLEY. OK.

Now I want to go to essential air service. Congress approved an extension of the Essential Air Service Program, but of course, we only appropriate $25 million for these subsidies in fiscal year 1989, and that happens to be $6.6 million less than the projected amount needed to support the 1988 service levels, and it is about $19 million than the full amount needed to increase support levels as authorized by Congress.

FAA is proposing major cuts in service including the elimination of assistance to many communities. Some of your proposals will cut service to at least two communities in my State where we feel that without good air service some of our smaller communities will have trouble with economic development in the future.

So my question is: What is your position concerning the continuation of the Essential Air Service Program?

Mr. WHITTINGTON. Senator, I have been asked to submit a paper on essential air service to the committee, that is not a function of the FAA, it is part of the CAB functions that were transferred to the Department of Transportation, the Secretary's officer.

Secretary Skinner has made some statements that he wants to look at that issue, but I am just not sure at this point in time where we are on it.

I understand the problem. Senator D'Amato mentioned the same issue, so if I may, I will address the Iowa ones for you if you would like.

Senator GRASSLEY. Could you say that again?

Mr. WHITTINGTON. I would address the EAS communities in your State in our response to the committee.

Senator GRASSLEY. OK.

Let me ask you this, even though you are not directly involved with making the determination, as the CAB is, you are involved, though, surely in an advisory role in the policymaking decision, are you not? You are consulted, you are not out of the loop entirely?

Mr. WHITTINGTON. Not that I am aware of. And, of course, I have just been in the acting position for a while, but I was the regional director in New England and we have communities similar to that, where it was a problem. And you can see that without that sort of service, that the people really have a hardship getting into the major hub areas. But we are not personally involved in this particular program.

Senator GRASSLEY. Well, then, in regard to a specific city in my State, I will submit a question for a response in writing, because you might not be prepared to respond to that. So, Mr. Chairman, I will submit my last question in writing.

[The information follows:]

We are always willing to work with civic officials to explore more efficient ways to improve the essential air service that is provided by subsidized air carriers.

At the community's request, we could solicit proposals from all carriers interested in providing EAS at Clinton, Iowa. In selecting a carrier to provide service with subsidy, we would carefully consider the views of civic officials, the overall capabilities of the applicant carriers to provide reliable air service, including their contractual and marketing arrangements and interline agreements with larger carriers, the amount of subsidy needed by each applicant, and other relevant factors. We would select the proposal that appears to offer the best combination of service benefits and subsidy costs.

Senator LAUTENBERG. Thank you very much, Senator Grassley.

We had quite a discussion about essential air service. There are many on this committee, including the distinguished President pro tem of the Senate, who feel that—and I am sure that Senator Byrd will talk about it—that is essential to keep those communities connected to the rest of the society in economic, as well, perhaps, as recreational development. And we have to maintain that service.

And I discussed it with Secretary Skinner, as did Senator Byrd, so we have those concerns right up front. And if it is not an FAA policy situation, we do have the Secretary's ear on this, and he understands how important it is to people like yourself.

Senator GRASSLEY. Thank you, Mr. Chairman.

Senator LAUTENBERG. Senator Byrd, welcome to our subcommittee. We are always graced by our distinguished leader. He is—and this is not in a formal sense, but in the functional sense—a leader of much of what goes on in this body of ours.

Senator Byrd, the floor is yours, sir.

CONTROL TOWERS IN WEST VIRGINIA

Senator BYRD. Thank you, Mr. Chairman.

I have had a chance to look over your statement, and I compliment you on your statement. I am very supportive of your statement, and I compliment you on doing a splendid job as chairman of this subcommittee.

I used to be the chairman of this subcommittee some years ago, and I take my hat off to you. You are doing a better job than I did, even in more difficult times, may I say.

I also compliment Mr. Whittington, who is the Acting Administrator. He is certainly a dedicated and knowledgeable public servant. And I have found him at all times to be considerate and interested in the problems of West Virginia, and always responsive to our concerns.

For the past 3 years the committee has directed that no traffic control towers in the State of West Virginia shall be closed because of my concern that equal or better service must be provided.

Mr. Whittington, is FAA complying with that directive, the directive that prohibits the FAA from closing any air traffic control towers in West Virginia in 1989?

Mr. WHITTINGTON. Yes, sir; and I hope that is true.

Mr. POLLARD. Yes, sir; that is true, not only in 1989, but we do not plan on closing any in 1990 either.

Mr. WHITTINGTON. Not even in our strategic plan.

FLIGHT SERVICE STATIONS IN WEST VIRGINIA

Senator BYRD. Aviation safety is one of my major concerns. West Virginia's mountainous terrain and rapidly changing weather conditions present unique problems for air travel. And this is why I have added report language to previous appropriation bills to keep our West Virginia flight service stations open. These stations, along with up-to-date radar and communications equipment, are necessary to ensure the safe operations of air travel in America's Afghanistan, West Virginia.

I am keenly interested in the FAA's modernization program, and I want to make sure that West Virginia receives the best available equipment at the earliest possible time.

I will ask the same question with regard to flight service stations. Are there any flight service stations scheduled to be closed in West Virginia?

Mr. POLLARD. We plan on commissioning the automated flight service station at Elkins in July 1990, and to commission that, we will close the existing facility there, and it will just be a move to a new facility. There are no other scheduled closures.

Senator BYRD. And what is the status of that project?

Mr. POLLARD. It will be commissioned in July 1990. We will open it with the people that are currently at Elkins, and following the directions of the subcommittee and Congress. In general, we will not be consolidating any flight service stations into Elkins until we have the automated equipment installed.

So it will just be, basically, a relocation into newer quarters.

Senator BYRD. It is my understanding that that facility will provide automated weather data to pilots before takeoff, and allow

pilots to record their flight plans. Nationwide, this modernization program has been delayed for about 2 years because of problems developing the software.

How are you addressing those problems, and what progress is being made?

Mr. POLLARD. Well, I am not an expert on that topic; however, we are addressing the problems. You are right, the program has slipped considerably. We currently have 46 automated flight service stations operating, and have done a lot of consolidations. But as far as the software development, Marty, either you are Ed probably should speak to that.

Mr. POZESKY. With your permission, I think Mr. Ed Harris is probably more current. It is my understanding that we are on schedule. Let me get a nod from Mr. Harris.

Mr. HARRIS. Yes, sir; we are on schedule. The problems previously experienced trying to get to the model 2 have been overcome. As you are aware, we are going to the model 1 full capacity. The project is on schedule, and everything should follow through accordingly.

PROGRAM COMPLETION

Senator BYRD. So when do you anticipate that that program will be completed?

Mr. HARRIS. We will start receiving the communications switching system in 1990. In 1991 we start delivery of the model 1 full capacity equipment. I do not have the schedule in front of me specifically for Elkins.

Senator BYRD. Could you give me that schedule?

Mr. HARRIS. Yes.

[The information follows:]

Model 1 full capacity equipment is scheduled for delivery to Elkins, West Virginia in 10/91 and will be operational in 2/92.

Mr. POLLARD. If I might add, based on the equipment being delivered, we have planned no consolidations into Elkins until the beginning of the third quarter of 1992. It would be between then and the first quarter of 1993.

Senator BYRD. If I might have that information in a letter.

Mr. WHITTINGTON. Yes, sir.

[CLERK'S NOTE: Letter response maintained in committee's files.]

AWOS IN WEST VIRGINIA

Senator BYRD. Part of the systems modernization plans calls for installing the automated weather observing stations at certain airports where there are no human weather observers and sometimes replacing the existing observers.

This could be a very important improvement in my State. Could you describe the plans for AWOS in West Virginia? What exists now, and what improvements are covered in your 1990 budget?

Mr. HARRIS. We just awarded a contract for AWOS systems that starts delivery this month. They will be delivering 8 systems a month for 20 months for a total of 160 systems; 140 of those systems are scheduled for deployment throughout the Nation.

I can provide for the record the exact locations in West Virginia that will be getting AWOS.

[The information follows:]

Parkersburg, West Virginia will receive an AWOS system.

Senator BYRD. Would you also include that information in a letter that you are going to give me?

Mr. HARRIS. Yes, sir.

CONSOLIDATION OF FLIGHT SERVICE STATIONS

Senator BYRD. In the course of the system modernization many existing flight service stations will be consolidated as the newer, larger automated stations are opened. In West Virginia there are flight service stations in Bluefield, Charleston, Huntington, Martinsburg, Morgantown, and Parkersburg. What plans does the FAA have for these facilities?

Mr. POLLARD. Senator, that addresses what I commented on earlier there. We can provide you the specific date that we currently have scheduled for those facilities. None of those facilities that you have named would be consolidated to Elkins prior to the third quarter of 1992.

We would hope to have that completed by the first quarter of 1993.

Mr. WHITTINGTON. But after that time you would be tying those into Elkins?

Mr. POLLARD. All those consolidations would be into Elkins, and it would start at the beginning of the timeframe that I indicated and hopefully have all of them consolidated into Elkins by first quarter of 1993.

CLARKSBURG, WV

Senator BYRD. The FAA recently visited the Benneton Airport, Clarksburg and Bridgeport regarding the airport's plans to become a full-scale aviation facility. Could you update me on this visit and how the FAA might assist that facility?

Mr. WHITTINGTON. Just a minute, Senator.

Mr. DONAHUE. I am Robert Donahue, Associate Administrator for Airports. I am unaware of the visit to Clarksburg. Then, if we just might expand the letter that we are going to send to you, I will look into it and tell you the results of that visit to Clarksburg.

Mr. WHITTINGTON. I know that we did, following on my visit with you, Senator, our regional team did visit Petersburg, and that project is right on track.

Senator BYRD. Petersburg, yes. That is in Grant County. That is over on the eastern side of West Virginia. Clarksburg Benneton Bridgeport Airport is in the central part, the birthplace of Stonewall Jackson.

If you will keep me apprised of your plans there, economic development in and around the facility could be realized if these plans come about. So, if you will keep me apprised of what is going on there and how I might help.

Mr. WHITTINGTON. We will give you our current status and our best thoughts on that particular area.

Senator BYRD. Very well. Thank you very much, Mr. Whittington and thank you, Mr. Chairman.

AIRCRAFT AIRWORTHINESS

Senator HARKIN. Mr. Whittington, and your associates, I have a series of questions that I want to ask you about aircraft airworthiness and the problems we are having with aging aircraft.

We have all seen pictures of planes that have had catastrophic failures of the airframes and other aircraft parts. There is a major problem with our aging aircraft fleet, and we must do all we can to solve it.

I understand that a large portion of our problems may be solvable through the development of analytical techniques involving nondestructive evaluation of materials. So, I have a series of questions regarding that, and I might just say as a pilot myself for 27 years and still actively flying, I am very cognizant of the difference between the aircraft carriers of today and the old DC-3's, for example.

People say well, gee, the DC-3's have been flying since the 1930's. Why do we have to worry about the new modern jets?

Well, they do not understand the new jets are pressurized, depressurized, pressurized, depressurized several times a day. It puts stress on the metal. They land harder. They carry heavier loads, they are under more adverse conditions. And so we do have a problem with the aging aircraft fleet.

And how do we know when an aircraft really has reached the point at which major repairs are needed? We can inspect certain things, as you know, with the inspection procedures we have now, but just how good is a plane's material itself?

In 1988 FAA established an aging aircraft research program. How does this program differ from the FAA airworthiness research program that has been in place for a number of years?

Mr. WHITTINGTON. Senator Harkin, I agree on your observations about the difference now versus the DC-3 days and so on. I am going to let Tony Broderick handle the series of questions. He is our expert in the airworthiness area.

Senator HARKIN. Thank you.

Mr. BRODERICK. Senator, the aging aircraft program is a comprehensive program that in fiscal 1989 and 1990 actually has about $10 million of early funding either being spent or requested in the budget.

It is specifically focused on aging aircraft technology development, inspection procedures development, and technology transfer. Frankly, our activities in the past have been very limited in this area mainly directed at new technologies rather than existing technologies of aircraft design and manufacture.

And for all practical purposes, no technology development in the area of nondestructive inspection except for the new composite aircraft, so it really is a completely different area of emphasis.

NONDESTRUCTIVE EVALUATION

Senator HARKIN. You say that there is no program on nondestructive evaluation?

Mr. BRODERICK. There had not been until this new program to which you refer.

Senator HARKIN. There had been a program of nondestructive evaluation?

Mr. BRODERICK. There had not been a program in the past except for nondestructive evaluation of composite materials.

Senator HARKIN. I see, of composite materials. Are you using this new program to look at nondestructive evaluation?

Mr. BRODERICK. Yes; of all kind, not only nondestructive evaluation, but inspection techniques in general.

Senator HARKIN. Nondestructive inspection.

Mr. BRODERICK. Yes.

AGING AIRCRAFT RESEARCH PROGRAM

Senator HARKIN. According to an April 18, 1989, GAO review of the management of FAA research and development, the agency needs to establish—and I am quoting from them—"central guidance over its research programs."

Please tell me what FAA is doing to provide more focus and central guidance to the aging aircraft research program?

Mr. BRODERICK. We have actually formed a group of people that includes what we call our national resource specialists which are experts, world experts in the field of technology that they represent, as well as management people from the flight standards organization, the aircraft certification organization, and the research and development organizations. We meet frequently but formally on a quarterly basis with that group and semiannually at my level to review project-by-project progress and plans not only in a technical sense, but in a budgetary sense.

I think we have got an excellent centralized development program which is also very well coordinated with the industry representatives under the ATA and AIA organizations as well as NASA.

Senator HARKIN. It is my understanding that your fiscal year 1990 budget request includes an increase of $4.2 million over fiscal year 1989 for the aging aircraft programs.

However, the Air Transport Association recommended an additional $7 million be added to the budget request for the aging aircraft program. If you had that additional money, what areas should it be invested so that it would contribute most to a focused program?

Mr. BRODERICK. I am not sure that in the short term in fiscal 1988, fiscal 1989 and 1990 that we can increase significantly the rate of spending that we have planned.

As I indicated, I am not familiar with the ATA specific suggestions. But what I can do is for the record rack up for you our program and what they have recommended and let you know what the differences are and what our plans are.

We are actually progressing in this year and next year at about the fastest rate we think is reasonable.

Senator HARKIN. It is my understanding that Harwell Laboratories, the major research establishment of the United Kingdom Atomic Energy Authority, proposed the establishment of an aging

aircraft inspection club to help the U.S. aviation industry improve aircraft maintenance technologies and practices.

How has the U.S. aviation industry responded to that proposal?

Mr. BRODERICK. I am not familiar with the proposal.

Senator HARKIN. I will submit that question in writing. You might want to find out for me.

Mr. BRODERICK. We would be happy to.

Senator HARKIN. One proposal for addressing the intermediate to long-term problems associated with our aging aircraft is to establish a cooperative university, industry, government research and training center.

Have you considered such a training center? If not, I would like to have your assessment of this approach to improving aviation systems reliability, practices, and technologies in the field of nondestructive evaluation.

Mr. BRODERICK. We have talked about that. In fact, in Iowa there is an organization that has been discussed with us briefly.

We think we have got to improve the ties that we have had in the past with the university folks, academic folks, as well as industry and other government agencies.

Clearly we have not made a final decision on that or similar proposals, but clearly that kind of thing is something that needs to be considered. Whether we specifically look at establishing and/or funding such an organization in nondestructive inspection or related areas, is something we have not yet come to a final decision on.

NATIONAL TRAINING PROGRAM

Senator HARKIN. Another possible mechanism for improving the nondestructive inspection techniques would be to establish a national training program. I understand there is no such thing now as a national training program for inspection techniques or nondestructive evaluation.

Has FAA considered establishing a training program for the FAA inspectors, maintenance technicians, the designers, people like that? If not, do you have any plans for considering that type of training program?

Mr. BRODERICK. We do have those plans. What we are doing is working right now with an interdisciplinary team of people that include experts in maintenance, experts in design, and perhaps most important, experts in human factors to go out to the heavy checks that are being performed at maintenance bases in the United States and look at the kind of training that these people are getting their inspections, the kind of certifications and examinations they give them, the kind of techniques and technologies that are being employed.

We are then going to develop the best from all around the country and put together what amounts to a model program or a national training program and make the appropriate modifications to airline maintenance requirements through their manual procedures.

Senator HARKIN. It sounds like you have been considering that, and I appreciate it. I just want to point out that other agencies of the Federal Government have used this kind of cooperative ap-

proach: university, industry, government, research model to tackle serious problems.

For example, the National Science Foundation has established more than 30 such centers that are working on a broad range of problems. One such center involves the major U.S. airframe and air propulsion manufacturers. So, again, I am hopeful that you are looking at this as a model and that you're working to bring all of this expertise together to address this problem of our aging aircraft.

Mr. BRODERICK. We are evaluating that, Senator.

Senator HARKIN. Do you have any timeframe? I do not know how long these things take, but are you looking at the NSF model?

Mr. BRODERICK. The NSF model and the kinds of things that NASA has done with universities are both things that we are evaluating. Over the next couple of years we will be discussing in detail with these people not only what we have seen and what we like, but what the ideas are from the private sector, if you will, if I call some of the universities that.

AIRPORT IMPROVEMENT PROGRAM FUNDING

Senator HARKIN. I have some other questions regarding this aspect of nondestructive evaluation which I will submit to you in writing.

Mr. Chairman, I just have a couple more questions, if you do not mind, on another topic, on the AIP funding, airport improvement program funding.

Last year airports advised this committee that the FAA may be taking the view that under the Airport and Airway Safety and Capacity Expansion Act of 1987, large airports with capacity constraints will receive virtually all of the AIP funds over the next several years.

As you know, the discretionary fund language of the 1987 law requires that 75 percent of these discretionary funds go toward projects at primary and reliever airports for safety, security, noise, and capacity projects.

The use of primary airports, those airports with 10,000 annual enplanements or more, were specifically selected to clarify the fact that this money is not intended for only the largest airports in the system and not intended only for capacity projects.

Due to these concerns, the fiscal year 1989 DOT appropriations conference report directed the FAA to adopt a policy to ensure the needs of all eligible airports are funded within the present AIP allocation.

Now, can you explain why I continually hear that the FAA regional offices are telling small and medium-sized airports not to apply for discretionary money, that it is going only to the big airports?

Mr. DONAHUE. Again, I am Robert Donahue, Associate Administrator of Airports, and that is not so.

Senator HARKIN. Then how come they are telling me that the FAA regional offices are telling them to not bother applying? Should I just go back and tell them to apply anyway, that they are going to get that funding?

Mr. DONAHUE. As a matter of fact, Senator, they have been receiving the funding. We can supply for the record the grants that were made, the discretionary grants made in 1988.

[The information follows:]

Attached is a list of discretionary grants over $2 million for 1988. Grants that were approved for less than $2 million can be provided.

AIRPORT IMPROVEMENT PROGRAM
DISCRETIONARY FUNDS

FISCAL YEAR(S) 88
FUNDING LIMIT GT 002000000

LOCATION/ AIRPORT	WORK DESCRIPTION	DISCRETIONARY PORTION	TOTAL FEDERAL FUNDS
ALABAMA			
BIRMINGHAM BIRMINGHAM MUNICIPAL	REMOVE OBSTRUCTIONS; ACQUIRE LAND FOR NOISE COMPATIBILITY AND APPROACHES; PROVIDE RELOCATION ASSISTANCE	$2,994,370	$4,941,918
	SUB TOTALS	$2,994,370	$4,941,918
ARIZONA			
BULLHEAD CITY BULLHEAD CITY/LAUGHLIN	CONSTRUCT NEW AIRPORT (SITE PREPARATION)	$2,800,000	$2,800,000
CHANDLER CHANDLER MUNICIPAL	ACQUIRE LAND FOR DEVELOPMENT AND APPROACHES	$3,000,000	$3,000,000
LAKE HAVASU CITY LAKE HAVASU CITY (NEW)	CONSTRUCT RUNWAY, TAXIWAY AND APRON (PHASE I - SITE PREPARATION); ACQUIRE LAND FOR NEW AIRPORT	$3,540,269	$3,540,269
PHOENIX PHOENIX SKY HARBOR INTERNATIONAL	CONSTRUCT AND LIGHT TAXIWAYS	$5,000,000	$16,984,038
PHOENIX PHOENIX SKY HARBOR INTERNATIONAL	ACQUIRE LAND FOR NOISE COMPATIBILITY; PROVIDE RELOCATION ASSISTANCE	$3,000,000	$3,000,000
	SUB TOTALS	$17,340,269	$29,324,307
ARKANSAS			
LITTLE ROCK ADAMS FIELD	CONSTRUCT RUNWAY AND TAXIWAY FOR NOISE COMPATIBILITY (PHASE VI); CONSTRUCT DRAINAGE	$5,560,000	$5,560,000
NORTH LITTLE ROCK NORTH LITTLE ROCK MUNICIPAL	ACQUIRE LAND FOR APPROACHES	$2,000,000	$2,000,000
	SUB TOTALS	$7,560,000	$7,560,000
CALIFORNIA			
BURBANK BURBANK-GLENDALE-PASADENA	CONSTRUCT TAXIWAY; ACQUIRE LAND FOR DEVELOPMENT	$6,500,000	$8,827,004
BYRON CONTRA COSTA COUNTY (NEW)	ACQUIRE LAND FOR DEVELOPMENT AND APPROACHES	$2,673,402	$2,673,402

LOCATION/ AIRPORT	WORK DESCRIPTION	DISCRETIONARY PORTION	TOTAL FEDERAL FUNDS
LIVERMORE LIVERMORE MUNICIPAL	ACQUIRE LAND FOR APPROACHES; OVERLAY AND EXTEND RUNWAY AND TAXIWAY	$2,500,000	$2,500,000
LOS ANGELES LOS ANGELES INTERNATIONAL	ACQUIRE LAND FOR NOISE COMPATIBILITY; PROVIDE RELOCATION ASSISTANCE	$4,000,000	$4,000,000
ONTARIO ONTARIO INTERNATIONAL	CONSTRUCT TAXIWAY; INSTALL TAXIWAY LIGHTING; ACQUIRE LAND FOR DEVELOPMENT	$5,000,000	$11,982,525
RIALTO RIALTO MUNICIPAL (MIRO FIELD)	CONSTRUCT AND LIGHT RUNWAY AND TAXIWAY, INSTALL GUIDANCE SIGNS AND WIND INDICATOR; RELOCATE VISUAL APPROACH AID	$2,500,000	$2,500,000
SACRAMENTO SACRAMENTO METROPOLITAN	CONSTRUCT AND LIGHT TAXIWAYS AND APRON	$2,440,363	$7,652,814
SAN JOSE SAN JOSE INTERNATIONAL	ACQUIRE LAND FOR NOISE COMPATIBILITY; PROVIDE RELOCATION ASSISTANCE	$3,000,000	$3,833,951
SANTA ANA JOHN WAYNE/ORANGE COUNTY	CONSTRUCT APRON	$7,500,000	$7,500,000
	SUB TOTALS	$36,113,765	$51,469,696
COLORADO			
COLORADO SPRINGS COLORADO SPRINGS MUNICIPAL	CONSTRUCT TAXIWAYS AND APRONS	$3,300,000	$4,638,447
EAGLE EAGLE COUNTY	EXPAND APRON AND STRENGTHEN OVERRUN; INSTALL VISUAL APPROACH AIDS; ACQUIRE LAND FOR DEVELOPMENT	$2,043,000	$2,043,000
	SUB TOTALS	$5,343,000	$6,681,447
FLORIDA			
FORT LAUDERDALE FORT LAUDERDALE-HOLLYWOOD INTERNATIONAL	CONSTRUCT, RECONSTRUCT AND LIGHT TAXIWAYS; CONSTRUCT SERVICE ROAD	$2,100,000	$2,615,000
MIAMI MIAMI INTERNATIONAL	STRENGTHEN AND GROOVE RUNWAY; RECONSTRUCT AND LIGHT TAXIWAY; IMPROVE TERMINAL BUILDING	$5,657,825	$9,679,000
ORLANDO ORLANDO INTERNATIONAL	CONSTRUCT RUNWAY AND TAXIWAYS; CONSTRUCT TAXIWAY BRIDGES; INSTALL RUNWAY AND TAXIWAY LIGHTING (PHASE II)	$10,330,000	$21,196,000

LOCATION/ AIRPORT	WORK DESCRIPTION	DISCRETIONARY PORTION	TOTAL FEDERAL FUNDS
ORLANDO ORLANDO INTERNATIONAL	RECONSTRUCT AND LIGHT RUNWAY; CONSTRUCT AND LIGHT TAXIWAYS AND APRON; RECONSTRUCT BUILDING	$4,690,000	$4,690,000
TAMPA TAMPA INTERNATIONAL	RECONSTRUCT, GROOVE AND LIGHT RUNWAYS	$4,000,000	$6,594,000
WEST PALM BEACH PALM BEACH INTERNATIONAL	ACQUIRE LAND FOR NOISE COMPATIBILITY; PROVIDE RELOCATION ASSISTANCE	$4,000,000	$4,000,000
	SUB TOTALS	$30,777,825	$48,774,000
GEORGIA			
ATLANTA THE WILLIAM B HARTSFIELD-ATLANTA INTL	SOUNDPROOF RESIDENCES; ACQUIRE LAND FOR NOISE COMPATIBILITY; PROVIDE RELOCATION ASSISTANCE	$8,000,000	$24,000,000
LAWRENCEVILLE GWINNETT COUNTY-BRISCOE FIELD	CONSTRUCT RUNWAY, TAXIWAYS AND APRON (SITE PREPARATION); RELOCATE ROAD	$5,416,011	$5,416,011
	SUB TOTALS	$13,416,011	$29,416,011
HAWAII			
HONOLULU HONOLULU INTERNATIONAL	CONSTRUCT TAXIWAY AND APRON	$3,000,000	$3,000,000
	SUB TOTALS	$3,000,000	$3,000,000
ILLINOIS			
ALTON CIVIC MEMORIAL	EXTEND RUNWAY AND TAXIWAY FOR NOISE COMPATIBILITY; ACQUIRE LAND FOR DEVELOPMENT AND APPROACHES	$3,811,100	$3,811,100
CHICAGO CHICAGO MIDWAY	CONDUCT MASTER PLAN UPDATE; UPGRADE SECURITY; CONSTRUCT AIRCRAFT RESCUE AND FIRE FIGHTING BUILDING; REHABILITATE RUNWAY (DESIGN ONLY); INSTALL TAXIWAY SIGNS; ACQUIRE LAND FOR APPROACHES	$2,200,000	$10,231,250
CHICAGO CHICAGO O'HARE INTERNATIONAL	EXTEND RUNWAY AND TAXIWAYS	$5,175,000	$5,175,000
CHICAGO CHICAGO O'HARE INTERNATIONAL	SOUNDPROOF SCHOOL (FENTON IN BENSENVILLE)	$3,600,000	$3,600,000
CHICAGO/WHEELING PALWAUKEE	ACQUIRE LAND FOR APPROACHES	$4,000,000	$4,000,000
	SUB TOTALS	$18,786,100	$26,817,350

LOCATION/ AIRPORT	WORK DESCRIPTION	DISCRETIONARY PORTION	TOTAL FEDERAL FUNDS
INDIANA			
FORT WAYNE FORT WAYNE MUNICIPAL/BAER FIELD	EXTEND AND LIGHT TAXIWAY	$3,841,696	$6,133,297
INDIANAPOLIS INDIANAPOLIS INTERNATIONAL	CONSTRUCT RUNWAY AND TAXIWAYS (PHASE I)	$6,349,500	$6,349,500
INDIANAPOLIS INDIANAPOLIS INTERNATIONAL	ACQUIRE LAND FOR NOISE COMPATIBILITY; PROVIDE RELOCATION ASSISTANCE	$3,000,000	$3,000,000
INDIANAPOLIS INDIANAPOLIS INTERNATIONAL	CONSTRUCT AND LIGHT RUNWAY AND TAXIWAYS (PHASE II)	$8,000,000	$8,000,000
TERRE HAUTE HULMAN REGIONAL	RECONSTRUCT AND OVERLAY TAXIWAYS	$3,501,000	$3,501,000
	SUB TOTALS	$24,692,196	$26,983,797
KENTUCKY			
COVINGTON GREATER CINCINNATI INTERNATIONAL	CONSTRUCT RUNWAY (PHASE I)	$8,000,000	$11,155,022
COVINGTON GREATER CINCINNATI INTERNATIONAL	CONSTRUCT RUNWAY (PHASE II)	$8,000,000	$8,000,000
	SUB TOTALS	$16,000,000	$19,155,022
LOUISIANA			
NEW ORLEANS NEW ORLEANS INTERNATIONAL/MOISA NT FIELD	ACQUIRE LAND FOR NOISE COMPATIBILITY; PROVIDE RELOCATION ASSISTANCE	$4,800,000	$4,800,000
	SUB TOTALS	$4,800,000	$4,800,000
MAINE			
WATERVILLE WATERVILLE-ROBERT LAFLEUR	RECONSTRUCT AND LIGHT RUNWAY	$3,015,000	$3,015,000
	SUB TOTALS	$3,015,000	$3,015,000
MARYLAND			
BALTIMORE BALTIMORE-WASHINGTO INTERNATIONAL	REHABILITATE RUNWAY; EXTEND RUNWAY SAFETY AREA; CONSTRUCT, OVERLAY AND WIDEN TAXIWAYS	$2,300,000	$3,338,588

LOCATION/ AIRPORT	WORK DESCRIPTION	DISCRETIONARY PORTION	TOTAL FEDERAL FUNDS
FREDERICK FREDERICK MUNICIPAL	REMOVE AND LIGHT OBSTRUCTIONS; CONSTRUCT RUNWAY, TAXIWAY AND APRON (PHASE II); INSTALL RUNWAY LIGHTING AND WEATHER REPORTING EQUIPMENT	$2,600,000	$2,600,000
SALISBURY SALISBURY WICOMICO COUNTY	CONSTRUCT TAXIWAY, APRON AND ACCESS ROAD; EXPAND TERMINAL BUILDING	$2,070,318	$2,963,182
	SUB TOTALS	$6,970,318	$8,901,770
MASSACHUSETTS			
BOSTON GENERAL EDWARD L LOGAN INTERNATIONAL	SOUNDPROOF RESIDENCES; ACQUIRE NOISE MONITORING EQUIPMENT	$4,835,150	$21,400,994
	SUB TOTALS	$4,835,150	$21,400,994
MICHIGAN			
DETROIT DETROIT CITY	REMOVE OBSTRUCTIONS; ACQUIRE LAND FOR APPROACHES; PROVIDE RELOCATION ASSISTANCE	$2,500,000	$3,023,612
DETROIT WILLOW RUN	REMOVE OBSTRUCTIONS; ACQUIRE LAND FOR APPROACHES; PROVIDE RELOCATION ASSISTANCE; INSTALL FENCING	$3,200,000	$3,200,000
	SUB TOTALS	$5,700,000	$6,223,612
MINNESOTA			
MINNEAPOLIS MINNEAPOLIS-ST PAUL INTERNATIONAL	REHABILITATE RUNWAY AND TAXIWAY; RECONSTRUCT APRON; INSTALL AIRPORT BEACON; REALIGN SERVICE ROAD	$2,488,313	$2,488,313
	SUB TOTALS	$2,488,313	$2,488,313
MISSOURI			
KANSAS CITY RICHARDS - GEBAUR	REHABILITATE RUNWAY, TAXIWAY LIGHTING SYSTEM (INCLUDING SIGNING, DISTANCE-TO-GO MARKERS AND BEACON); RECONSTRUCT APRON	$2,480,572	$2,480,572
LEE'S SUMMIT MCCOMAS-LEE'S SUMMIT MUNICIPAL	CONSTRUCT RUNWAY AND TAXIWAY (SITE PREPARATION); EXTEND RUNWAY AND TAXIWAY; ACQUIRE LAND FOR APPROACHES	$3,647,250	$3,647,250

LOCATION/ AIRPORT	WORK DESCRIPTION	DISCRETIONARY PORTION	TOTAL FEDERAL FUNDS
ST LOUIS LAMBERT-ST LOUIS INTERNATIONAL	REHABILITATE PORTION OF TERMINAL APRON; ACQUIRE LAND FOR NOISE COMPATIBILITY	$4,000,000	$10,759,660
	SUB TOTALS	$10,127,822	$16,887,482
NEVADA			
LAS VEGAS MC CARRAN INTERNATIONAL	RECONSTRUCT RUNWAY AND TAXIWAY; CONSTRUCT AND LIGHT TAXIWAYS AND APRON; IMPROVE DRAINAGE; ACQUIRE AIRCRAFT RESCUE AND FIRE FIGHTING VEHICLE	$2,500,000	$7,908,184
LAS VEGAS MC CARRAN INTERNATIONAL	ACQUIRE LAND FOR NOISE COMPATIBILITY	$4,143,495	$4,143,495
LAS VEGAS MC CARRAN INTERNATIONAL	RECONSTRUCT RUNWAY AND TAXIWAY; INSTALL APRON LIGHTING	$3,935,000	$3,935,000
LAS VEGAS NORTH LAS VEGAS AIR TERMINAL	RECONSTRUCT AND EXTEND RUNWAY; CONSTRUCT TAXIWAYS AND APRONS; INSTALL TAXIWAY LIGHTING; IMPROVE DRAINAGE; RELOCATE ELECTRIC POWER	$2,969,157	$3,269,157
	SUB TOTALS	$13,547,652	$19,255,836
NEW JERSEY			
NEWARK NEWARK INTERNATIONAL	OVERLAY AND EXTEND TAXIWAYS; IMPROVE RUNWAY AND TAXIWAY LIGHTING CONTROL; OVERLAY AND EXTEND SERVICE ROAD	$2,100,000	$3,276,000
	SUB TOTALS	$2,100,000	$3,276,000
NEW MEXICO			
ALBUQUERQUE ALBUQUERQUE INTERNATIONAL	RECONSTRUCT, EXTEND AND LIGHT RUNWAY; CONSTRUCT TAXIWAY AND APRON; ACQUIRE SNOW REMOVAL EQUIPMENT; CONSTRUCT EQUIPMENT BUILDING; ACQUIRE LAND FOR DEVELOPMENT	$4,200,000	$14,051,698
	SUB TOTALS	$4,200,000	$14,051,698
NEW YORK			
BINGHAMTON LINK FIELD-BROOME COUNTY	EXTEND AND LIGHT RUNWAY; OVERLAY RUNWAY; CONSTRUCT TAXIWAY	$4,900,000	$5,742,741

LOCATION/ AIRPORT	WORK DESCRIPTION	DISCRETIONARY PORTION	TOTAL FEDERAL FUNDS
NEW YORK JOHN F KENNEDY INTERNATIONAL	CONSTRUCT PARALLEL TAXIWAY SYSTEM (BETWEEN PARALLEL RUNWAYS 4/22); CONSTRUCT AND WIDEN TAXIWAYS; MODIFY DRAINAGE	$7,275,518	$9,099,518
	SUB TOTALS	$12,175,518	$14,842,259
NORTH CAROLINA			
WILMINGTON NEW HANOVER COUNTY	REHABILITATE, WIDEN AND STRENGTHEN TAXIWAYS; CONSTRUCT APRON; INSTALL TAXIWAY LIGHTING; CONSTRUCT UTILITY AND DRAINAGE STRUCTURE	$2,737,698	$2,737,698
	SUB TOTALS	$2,737,698	$2,737,698
OHIO			
CLEVELAND CLEVELAND HOPKINS INTERNATIONAL	REMOVE OBSTRUCTIONS; ACQUIRE LAND FOR APPROACHES; PROVIDE RELOCATION ASSISTANCE	$2,250,000	$2,250,000
COLUMBUS PORT COLUMBUS INTERNATIONAL	ACQUIRE LAND FOR NOISE COMPATIBILITY; SOUNDPROOF FIVE SCHOOLS; INSTALL NOISE MONITORS; PROVIDE RELOCATION ASSISTANCE	$3,374,373	$3,374,373
COLUMBUS PORT COLUMBUS INTERNATIONAL	REMOVE OBSTRUCTIONS; ACQUIRE SECURITY AND SNOW REMOVAL EQUIPMENT; CONSTRUCT TAXIWAYS, APRONS AND ACCESS ROAD; CONSTRUCT TAXIWAY AND APRON (DESIGN ONLY); INSTALL RUNWAY SIGNS AND SENSORS; ACQUIRE LAND FOR APPROACHES	$3,062,500	$5,596,244
DAYTON JAMES M COX DAYTON INTERNATIONAL	SOUNDPROOF RESIDENCES; ACQUIRE LAND FOR NOISE COMPATIBILITY; PROVIDE RELOCATION ASSISTANCE	$3,104,000	$3,104,000
	SUB TOTALS	$11,790,873	$14,324,617
PENNSYLVANIA			
PHILADELPHIA NORTHEAST PHILADELPHIA	EXPAND APRON	$2,500,000	$2,500,000
PHILADELPHIA PHILADELPHIA INTERNATIONAL	REHABILITATE RUNWAY AND TAXIWAYS (DESIGN ONLY); CONSTRUCT TERMINAL APRON, ACCESS ROAD AND TERMINAL BUILDING; INSTALL TAXIWAY SIGNS	$7,000,000	$8,065,161

LOCATION/ AIRPORT	WORK DESCRIPTION	DISCRETIONARY PORTION	TOTAL FEDERAL FUNDS
PITTSBURGH GREATER PITTSBURGH INTERNATIONAL	CONSTRUCT TAXIWAYS; CONSTRUCT MIDFIELD TERMINAL APRON	$12,000,000	$17,497,671
PITTSBURGH GREATER PITTSBURGH INTERNATIONAL	ACQUIRE LAND FOR NOISE COMPATIBILITY; SOUNDPROOF RESIDENCES	$2,500,000	$2,500,000
	SUB TOTALS	$24,000,000	$30,562,832
SOUTH CAROLINA			
COLUMBIA COLUMBIA METROPOLITAN	INSTALL SECURITY FENCING; REHABILITATE RUNWAY; EXTEND RUNWAY AND TAXIWAY (SITE PREPARATION) WITH LIGHTING; CONSTRUCT ELECTRICAL VAULTS; RELOCATE NAVAIDS AND UTILITY	$2,545,664	$7,890,500
COLUMBIA COLUMBIA METROPOLITAN	EXTEND RUNWAY AND TAXIWAYS (PHASE I); REHABILITATE RUNWAY	$2,545,661	$2,545,661
	SUB TOTALS	$5,091,325	$10,436,161
TENNESSEE			
KNOXVILLE MC GHEE TYSON	EXTEND RUNWAY AND TAXIWAY (SITE PREPARATION); RELOCATE SERVICE ROAD AND UTILITIES	$3,200,000	$11,013,115
MEMPHIS MEMPHIS INTERNATIONAL	ACQUIRE LAND FOR NOISE COMPATIBILITY; PROVIDE RELOCATION ASSISTANCE	$4,000,000	$5,271,625
NASHVILLE NASHVILLE METROPOLITAN	CONSTRUCT RUNWAY (PHASE II)	$7,328,218	$7,416,700
NASHVILLE NASHVILLE METROPOLITAN	CONSTRUCT RUNWAY (PHASE III)	$7,000,000	$7,000,000
	SUB TOTALS	$21,528,218	$30,701,440
TEXAS			
AUSTIN NEW	ACQUIRE LAND FOR DEVELOPMENT (NEW AIRPORT-PHASE I)	$10,000,000	$10,000,000
DALLAS/FORT WORTH DALLAS/FORT WORTH INTERNATIONAL	CONSTRUCT TAXIWAY FILLET; EXPAND APRON; REHABILITATE RUNWAY AND TAXIWAY LIGHTING	$5,440,008	$8,799,693
FORT WORTH FORT WORTH ALLIANCE (NEW)	CONSTRUCT AIRPORT (PHASE I); ACQUIRE LAND FOR DEVELOPMENT	$10,000,000	$10,000,000

LOCATION/ AIRPORT	WORK DESCRIPTION	DISCRETIONARY PORTION	TOTAL FEDERAL FUNDS
MC KINNEY MC KINNEY MUNICIPAL	ACQUIRE LAND FOR DEVELOPMENT AND APPROACHES; RELOCATE SERVICE ROAD	$4,000,000	$4,000,000
	SUB TOTALS	$29,440,008	$32,799,693
UTAH			
SALT LAKE CITY SALT LAKE CITY INTERNATIONAL	EXTEND TAXIWAYS	$3,760,000	$3,760,000
	SUB TOTALS	$3,760,000	$3,760,000
VIRGIN ISLANDS			
CHARLOTTE AMALIE CYRIL E KING	CONSTRUCT APRON AND TERMINAL BUILDING (PHASE I)	$3,555,000	$7,741,000
	SUB TOTALS	$3,555,000	$7,741,000
VIRGINIA			
ROANOKE ROANOKE MUNICIPAL/WOODRUM	CONSTRUCT TERMINAL APRON (PHASE III), TAXIWAYS AND ACCESS ROAD	$2,200,000	$4,885,585
WASHINGTON, D C WASHINGTON DULLES INTERNATIONAL	CONSTRUCT AND WIDEN TAXIWAYS; INSTALL TAXIWAY SIGNS	$6,246,924	$6,246,924
	SUB TOTALS	$8,446,924	$11,132,509
WASHINGTON			
SEATTLE SEATTLE-TACOMA INTERNATIONAL	CONSTRUCT TAXIWAYS	$2,300,000	$4,053,525
SEATTLE SEATTLE-TACOMA INTERNATIONAL	ACQUIRE LAND FOR NOISE COMPATIBILITY; PROVIDE RELOCATION ASSISTANCE; CONDUCT NOISE COMPATIBILITY PLAN UPDATE (PART 150)	$5,400,000	$8,275,865
SEATTLE SEATTLE-TACOMA INTERNATIONAL	ACQUIRE LAND FOR NOISE COMPATIBILITY; PROVIDE RELOCATION ASSISTANCE (NOISE LAND)	$3,333,871	$4,662,846
	SUB TOTALS	$11,033,871	$16,992,236
	GRAND TOTALS	$367,367,226	$530,454,698

Mr. DONAHUE. As a matter of fact, those that have been made so far in 1989. The language in the act has caused some concern, certainly, among with AAAE and AOCI because if you took an absolutely hard interpretation of the language, it would tend to make one believe that the discretionary dollars were intended only for the large airports where they are capacity constrained.

In fact, with the exception of Dallas-Fort Worth where they are going through a $1 billion expansion program, we have not yet made another capacity discretionary grant in the current year under the letter of intent provision that was also contained in the 1987 appropriation act.

Seventy-five percent of the capacity discretionary dollars we find are really needed at those airports that are either potential hubs or have recently been designated as hubs by the larger air carriers and find that those airports, their revenue stream at the present time is not sufficient to provide them with the debt service dollars needed to do the new capital improvement projects required in order to accommodate this airport as a hub.

I call it the gray area, and it is that gray that we have to fill them with the discretionary dollars, and I think it has worked very well.

For instance, Cincinnati and Indianapolis, Kansas City, Nashville, those airports that really were growing needed it. They were going to do something for the system, rather than the LaGuardias, and the Kennedys and O'Hares, and so forth.

AIRPORT IMPROVEMENT PROGRAM FUNDING

Senator HARKIN. Is it true that the FAA is proposing that the current AIP formula be changed so that airports receive less entitlement funds in exchange for FAA getting more discretionary funds to allocate for aircraft, airport projects you deem as high priority?

Mr. DONAHUE. That is not in the administration proposal per se. What we have proposed for 1990 is a level of $1,350 million for the AIP program which is approximately a 4-percent reduction from 1989.

However, we are proposing that a $250 million amount be established as the minimum for the capacity discretionary. That is where we have the greatest need for capital dollars.

In the event—and this is described in the administration's proposal—that in the event that the appropriation level is below a certain mark—and that mark is approximately $1,550 million—then the shortfall to make up the $250 million increment would be reduced out of entitlements to the primary airports.

But all of those dollars, the full $250 million, is intended for capital improvements at those same primary airports.

It is not a suggestion that we reduce, for instance, the 46 percent that is presently in the act for distribution of entitlements into the primary airports. The 40-percent level is part of a dialog that has existed, but it is not in the proposal.

STANDARD RUNWAY DEICERS

Senator HARKIN. Thank you. One last question.

I am aware that the FAA is currently developing standards for solid runway deicers. I have been one who has supported and encouraged the use of environmentally safe alternatives to rock salt such as calcium magnesium acetate, and I see that you understand what that is all about.

When do you expect to have final issuance of a standard for solid runway deicers?

Mr. DONAHUE. It is tough to give you an absolute date because we have been working with NASA during the winter at northern airports. There are several products on the market or we were told will be on the market I think within the next 6 months. There will be a good period in which we could come to resolution. We also are very much opposed to rock salts or anything else on runways. As a matter of fact, rock salts are prohibited.

Senator HARKIN. What are you using now?

Mr. DONAHUE. The ethylene glycol.

Senator HARKIN. I have some additional questions I will submit in writing. Thank you, Mr. Chairman.

Senator BYRD. Mr. Chairman, would you permit me an additional couple of minutes?

Senator LAUTENBERG. Absolutely.

HOOVER FIELD

Senator BYRD. Our friend Tom Harkin is a pilot. I will ask for the record, has he ever flown into the old Hoover Field?

Senator HARKIN. Hoover Field?

Senator LAUTENBERG. The year was 1928.

Senator HARKIN. If you just tell me where the old Hoover field is, I will try to think. I have flown into a lot of fields.

Senator BYRD. Well, I had my first airplane ride at the old Hoover Field where the National Airport is now located. I came to Washington as a Boy Scout in the very early thirties, and there were some open cockpit planes taking off over there, and I was charged 50 cents for a plane ride out over the city.

And one of my boyfriends, Eugene Vaught, who was later killed in World War II, and I took this plane ride. It was a thriller. The pilot was in the cockpit and the two of us were in the only other seat. Eugene had a cap on. We boys in those days, those who could afford it, wore caps. And the plane took off, and the wind took way Eugene's cap, and we never were able to retrieve it.

I had perhaps a little more nerve in those days, considerably more than I have these days. I am sure that the maintenance and upkeep requirements were not as the FAA would require them to be now. I shall never forget that first plane ride at the old Hoover Field.

Senator HARKIN. You got to fly in the exciting airplanes, to hear the roar of the engine and the rush of the wind. That is when flying was fun. I have done a little bit of that myself, and those were the great days of flying.

AWOS AT GRANT COUNTY AIRPORT

Senator BYRD. Mr. Whittington, you mentioned a moment ago the airport at Petersburg in Grant County. We have had some dis-

cussions about that airport and I understand that you are in the process of installing an AWOS system there. Is there anything you can tell me today beyond what we have discussed recently?

Mr. WHITTINGTON. I do not think so. We have sent a memo over to you on that. I understand on the AWOS that is not federally owned, but there is an operator who can upgrade that to the category 3 and we are looking at that and as far as the localizer and the other instrument landing system, we are right on track on that.

Senator BYRD. Is that in accordance with our understanding when we discussed this?

Mr. WHITTINGTON. Yes.

Senator BYRD. I saw the other gentleman come to the table.

Mr. HARRIS. I was going to say the AWOS is upgradable to a category 3 AWOS and it is eligible under the AIP program. The DME for the localizer has been located so we are still looking at a target date of September 1990.

Senator BYRD. Very well. Well, I thank you for the attention you are giving to that airport. My interest continues and I shall be following the developments with great interest. Thank you very much. Thank you Mr. Chairman, and thank you Senator Harkin for renewing my faith in pilots.

Senator LAUTENBERG. Senator Harkin, do you have anything else?

Senator HARKIN. No, thank you very much Mr. Chairman, I do not.

UNAUTHORIZED ACCESS TO SECURE AREAS

Senator LAUTENBERG. Senator Byrd, in those days I think maintenance may have been a notch better, because the pilot often did his own maintenance. He wanted to make sure that airplane was going to fly.

Mr. Whittington, I just want to run through quickly, if we can, a few things here. In January the FAA issued a rule that required individual airports to devise systems to protect against unauthorized access to secure areas. In the rule they did not clearly define a secure area and nor was there any requirement for standardization among the airports. What kind of rule can we have that satisfies the test—satisfies the requirement—if we do not promote uniformity along the systems?

Mr. WHITTINGTON. Senator, I will let Mr. Belger talk on that too, but since that time we have had many meetings with industry. I believe it was yesterday we put out an advisory circular giving a better explanation about the access rule and I do believe that it is a good rule. It was misunderstood and certainly we would have to bear the brunt of that, but I do think that program is underway and I know there is a big interest.

We are reviewing the rule at the present time with the Secretary's office and within our own. I think the big problem was a lack of understanding of the program.

Senator LAUTENBERG. Why do you not do this? Send us a copy of that advisory. I mean, as long as you recognize that there were some things that had to be corrected there.

Mr. BELGER. Yes, sir, I will be glad to.

[The information follows:]

ADVISORY CIRCULAR

ACCESS CONTROL SYSTEMS

1. PURPOSE. This circular provides information and guidance for the implementation of Section 107.14 of Part 107 (14 CFR), Airport Security.

2. BACKGROUND. The Federal Aviation Administration's (FAA) Civil Aviation Security Program was initiated in 1973 by Federal Aviation Regulations (FAR). Part 107 of the FAR was effected to provide a secure environment in which air carriers can operate. Airport operators are required by Part 107 to have an FAA-approved airport security program in which they are further required to describe functions and procedures used to control access to certain areas of the airport and to control movement of persons and vehicles within those areas. The FAA was concerned that control procedures associated with airport identification systems could allow an individual using forged, stolen, or noncurrent identification to compromise airport secured areas. The FAA was also concerned that former employees could use their familiarity with airline and airport procedures to succeed in entering a secured area and commit a criminal act on board an aircraft.

3. DISCUSSION. Accordingly, Section 107.14 was developed to require airport operators to submit to the Director of Civil Aviation Security for approval and inclusion in their approved security programs, amendments that provide for the installation and use of a system, method, or procedure that meets certain performance standards, or the use of an approved alternative system, method, or procedure for controlling access to secured areas of airports, as discussed in the following paragraphs. The system, method, or procedure would supplement, not replace, the existing photo identification system required by an airport operator's approved security program. The airport operator will have the option of integrating the system, method, or procedure with the photo identification.

a. Paragraph (a) of Section 107.14 states the basic requirement that certain airport operators must amend their airport security programs to provide for the installation and use of a system, method, or procedure, which meets certain requirements for controlling access to secured areas of the airport. The airport operators that are subject to section 107.14 are those which regularly serve scheduled passenger operations conducted in aircraft having passenger seating configurations of more than 60 seats. The system, method, or procedure required by this paragraph must have four basic capabilities--to ensure that only those persons authorized to have access to secured areas are able to obtain that access, to deny access immediately at the access point(s) to individuals whose authority to have access changes, to differentiate between persons authorized to have access to only a particular portion of the secured area and those persons authorized to have access only to other portions or to the entire secured area, and to restrict an individual's access by time and date. The FAA envisions that, for access points experiencing a high volume of employee throughput, only those amendments which provide for a computer-based system or comparable technology meeting the four performance standards in paragraph (a) will be approved.

b. Paragraph (b) of Section 107.14 indicates that the Director of Civil Aviation Security will approve an amendment

to an airport security program that provides for the use of an alternative system, method, or procedure if, in the director's judgment, that alternative would provide an overall level of security equal to that provided by the system, method, or procedure described in paragraph (a). Systems, methods, or procedures approved in accordance with paragraph (b) are not required to meet the performance standards detailed in paragraph (a). They must, however, provide an overall level of security equal to that established by a system, method, or procedure which meets those performance standards. When an amendment is submitted which provides for an alternative system, method, or procedure, the FAA would expect that an identification medium is associated with that alternative (e.g., photo ID card).

The alternative systems, methods, and procedures permitted by paragraph (b) of Section 107.14 may be applied to airports in two ways. The FAA envisions that operators of smaller airports might choose to adopt an alternative system, method, or procedure to meet completely the intent of Section 107.14. Other airports might choose to adopt an alternative system, method, or procedure at a particular access point(s) where employee throughput is low or restricted to a limited number of users, or at access points remotely located from areas where air carriers subject to Parts 108 and 129 operate. See Section 4 of this Circular for more access control selection concepts. This paragraph also allows for implementation of technologies that may become available in the future which do not meet the performance standards described in Section 107.14(a).

c. Paragraph (c) of Section 107.14 provides a schedule for airport operators to submit the amendments to their approved security programs as required by paragraphs (a) and (b) of that section. The schedule reflects four phases. Operators of airports where 25 million or more persons are screened annually, or those airport operators designated by the Director of Civil Aviation Security, must submit their amendments by August 8, 1989, or by 6 months after becoming subject to this section, whichever is later. Operators of airports where more than 2 million persons are screened annually must submit their amendments by August 8, 1989, or by 6 months after becoming subject to Section 107.14, whichever is later. Operators of airports where 500,000 to 2 million persons are screened annually must submit their amendments by February 8, 1990, or by 12 months after becoming subject to Section 107.14, whichever is later. Operators of airports where less than 500,000 persons are screened annually must also submit the required amendments by February 8, 1990, or by 12 months after becoming subject to this section, whichever is later. Of course, airport operators may choose to submit program amendments earlier than the dates prescribed in paragraph (c) of Section 107.14 to facilitate the approval process and implementation of this section.

Paragraph (c) also requires that the airport security program amendments specify that the system, method, or procedure chosen to meet the requirements of Section 107.14 must be fully operational within the following timeframes. Airport operators who must meet the first phase of the schedule for amendment submittal must state in their program amendments that the system, method, or procedure will be fully operational within 18 months after approval of an amendment. Airport operators in the second phase must specify that the system, method, or procedure will be fully operational within 24 months after approval of their amendments. Airport operators in the third and fourth phases must specify that the system, method, or

procedure will be fully operational within 30 months after approval of their amendments.

The phases applied to airports currently subject to Section 107.14 are based upon the number of persons screened at those airports during calendar year 1987. For purposes of implementing Section 107.14, an airport's phase and associated implementation timetable will not change once established. As discussed earlier, airports which become subject to the requirements of Section 107.14 after the effective date of that section must comply with the timeframes described in paragraph (c). The specific timeframes applicable to such airports depend upon the number of persons screened at those airports during the 12 months prior to their becoming subject to Section 107.14. If no screening had been conducted at such an airport during the preceding 12-month period, then the timeframes associated with the fourth phase of the schedule would apply since it pertains to operators of airports where fewer than 500,000 persons are screened annually.

d. Paragraph (d) of Section 107.14 addresses the application of the requirements of this section to airports which will be constructed in the future. Airport operators of newly constructed airports which begin initial operation after December 31, 1990, and which regularly serve scheduled air carrier passenger operations in aircraft with passenger seating configurations of more than 60 seats, must include as part of their original airport security program submissions, a description of a fully operational system, method, or procedure that meets the requirements of Section 107.14. Airport operators of newly constructed airports are expected to work with FAA security personnel in the early stages of airport planning so that all of the requirements of Part 107 can be met prior to the airport commencing operation.

e. The security program amendment must describe the system, method, or procedure in detail and how that system meets the performance standards in paragraph (a) and/or how an alternative system, method, or procedure described in the amendment provides an overall level of security equal to that provided by the system, method, or procedure described in paragraph (a). The amendment must specify how each of the airport's access points will be controlled by the system, method, or procedure, reflect the implementation schedule, and specify the date on which the entire system, method, or procedure will be completed and fully operational. This date might require revision, as appropriate, to accommodate the amendment review process. In any event, the date specified must be within the timeframe designated in paragraph (c) of Section 107.14. The amendment must specify how deletions or additions to the data base will be accomplished, the timeframes for these changes, and who will be responsible for completing that function. Employers of persons who have been fired or would otherwise pose a threat to airport or air carrier operations, or whose badges have been lost or stolen, must report that change in access authority at the moment the authority changes. The airport operator must accomplish the appropriate data base update activity at the moment they receive information about a change of access authority. This will ensure that airport operators provide an appropriately trained person who is always available during hours of operation to update data bases associated with automated systems, and will also ensure that procedures are developed to revise nonautomated data bases such as lists used at staffed access points immediately. A statement to that effect should be included in the amendment. Other persons whose access authority changes under more common circumstances should also

be deleted from the data base as soon as possible, but not necessarily with the same urgency as those persons described above. Such changes should be accomplished no longer than 8 hours after the airport operator receives the information about a change of access authority. That time should also be specified in the amendment. Additionally, the amendment should describe the timeframe within which a tenant will notify the airport operator when an employee's access authorization changes. Tenant notification to the airport operator should be as soon as possible after an employee's authorization changes. The specific time should be stated in the amendment, as well as the methods to be used by the airport operator in advising all tenants of their reporting responsibility. The amendment should also describe how tenants and employees will be educated about the use of the appropriate access media by the airport operator. The amendment should address protection of the components associated with the system, method, or procedure, including such things as the data base and should describe procedures to ensure accountability and control of access media. The program amendment should also provide for documented audits of the system, method, or procedure by the airport operator to ensure that it is functioning as described. Finally, the amendment must specify what procedures the airport operator will implement should the system, method, or procedure required by Section 107.14 become incapable of performing the described functions.

4. SYSTEM, METHOD, OR PROCEDURE SELECTION CONCEPTS. The details regarding the system, method, or procedure used to meet the requirements of Section 107.14 are specific to each individual airport. The following concepts should be considered when selecting the appropriate system, method, or procedure.

a. Direct and Indirect Control. Each point which provides access to an airport secured area must be controlled, either directly or indirectly, by a system, method, or procedure required by Section 107.14. Many airport designs allow persons to be funneled through an access point which is directly controlled by a system, method, or procedure required by Section 107.14 thereby eliminating the need to control directly subsequent access points. Those subsequent access points would, therefore, be controlled indirectly. Appendix II reflects a diagram of how funneling may be used to reduce the number of access points directly controlled. It is critical that access points which are controlled indirectly are evaluated to ensure that the control procedures applied to them in accordance with Section 107.13 are effective. For example, access doors which are unlocked and alarmed must also have an immediate response capability associated with the alarm. An alarm without a response is nothing more than a detection measure and is not a means of access control.

b. Access Point Identification. Each access point to the airport secured area should be identified and analyzed by the airport operator to determine traffic patterns and tenants' operational requirements. The facility can be defined and represented graphically as a set of maps. Paper copies of the graphical layout can be useful in the generation of the security program documentation.

c. Nonessential Access Points. Terminal doors and gates which are not absolutely essential to the operations of the airport should be permanently locked/removed. The same concept applies to access points along the airport perimeter.

d. Performance Standards Expectation. The performance standards described in Section 107.14(a) contribute to successful, efficient access control. Therefore, the FAA would expect that all airport operators subject to this section would implement, to the extent possible, systems, methods, or procedures that meet those performance standards.

e. High-Activity Access Points. As was previously stated, the FAA envisions that operators of major airports and operators of airports with heavily used access points would select computer-based systems or comparable technologies to meet the requirements of Section 107.14 because of the sheer number of persons authorized to have access to secured areas at such airports. Heavily used access points are those used by a sufficiently large number of persons that a checklist or other manually referenced data base of authorized persons is unworkable or impractical. Throughput is a factor which determines the type of control needed at a particular access point.

f. Low-Activity Access Points. Nonautomated systems, methods, or procedures could be designed to meet the performance standards of Section 107.14(a) at access points of airports where the number of persons authorized to have access to secured areas is limited. Low-activity access points are those used by a sufficiently small number of persons where a checklist, verbal acknowledgement of authorization or other manually reference data base of authorized persons is operationally feasible.

g. Performance Standards Alternatives. Whereas airport operators are expected to implement to the extent possible, systems, methods, or procedures in accordance with paragraph (a) of Section 107.14, airport operators who choose to implement an alternative system, method, or procedure according to Section 107.14(b) should describe why the performance standards in Section 107.14(a) cannot be met. They should describe clearly how their selection provides a level of security equal to that provided by a system, method, or procedure which does meet those performance standards.

h. Access Point Monitoring. The selection of a particular system, method, or procedure is especially critical at gates and doors which serve as high-activity access points. A guard or other personnel or a turnstile might be required to ensure that every employee entering at that point does so by using their assigned access media. Such a determination should be made after an indepth analysis of employee/tenant traffic patterns through access points is completed. It is critical that each person attempting access is subjected to the control system, method, or procedure. If a particular access point is used by numerous employees during the same timeframe, thus encouraging the practice of employees holding open an access point for those following behind, then a mechanism to ensure that every employee uses their own access media is necessary. (See Section 6, Responsibility Awareness.)

i. Perimeter Access Points. The selection of a system, method, or procedure at access points along an airport's perimeter should take into consideration the level of access traffic and the access point's proximity to that portion of the air operations area where air carriers subject to Part 108 and 129 of the Federal Aviation Regulations enplane or deplane passengers. Access points along an airport's perimeter should be evaluated in terms of throughput as was discussed earlier. Additionally, time and distance from that portion of an airport used by air carriers subject to Part 108 and 129 contribute to

the delay in accessing those areas from a remote airport area. Such delay can only afford adequate access control when coupled with appropriate detection and response capabilities such as a dedicated ramp patrol specifically assigned to protect Part 108 and 129 air carrier operations from unauthorized access through remote areas. Therefore, perimeter access points distant from airport terminal operations should be afforded additional flexibility in determining access controls as long as the detection and response capabilities are effective and meet requirements of Section 107.14. In any event, access controls implemented at perimeter access points must be commensurate with access controls elsewhere at an airport so that those remote points do not become weak links in the overall airport security system.

j. Emergency Doors. Emergency exit doors from public and sterile areas leading to secured areas must be included in the system, method, or procedure; e.g., monitored by closed circuit television, with response capability, alarmed to alert designated individual(s) with response authority, etc. As discussed earlier, alarmed doors without response capabilities do not provide adequate access controls. If local fire regulations prevent emergency doors from being controlled by systems, methods, or procedures meeting the performance standards in Section 107.14(a), then alternative systems, methods, or procedures must be developed as appropriate. Emergency doors which access airport secured areas must be controlled directly or indirectly just as all other access points.

k. Exclusive Areas. The requirements of Section 107.14 apply to airport operators subject to that section notwithstanding the existence of exclusive areas. Therefore, at airports where a valid exclusive area(s) does exist, the airport operator may be required to modify existing exclusive area agreements and descriptions of the control procedures used by the air carrier to control access to that exclusive area. The requirements of Section 107.14 must be applied airport wide at airports subject to that section, and exclusive area agreements would be amended to reflect the implementation of that section. The airport operator is responsible for ensuring that exclusive area agreements are amended as necessary.

l. Existing Systems. Airport operators should consider the incorporation of existing air carrier and tenant access control technologies into the systems, methods, or procedures required by Section 107.14 where appropriate. Such incorporation could prove beneficial both economically and from a security perspective.

m. Screening Functions. At locations where all persons entering sterile areas from the public side do so only through access points directly controlled in accordance with Section 107.14 or screening procedures conducted pursuant to Part 108 or Part 129, subsequent doors which lead from the sterile area onto the air operations area would be considered to be controlled indirectly and would not require additional measures in response to Section 107.14. Access control procedures required by Section 107.13 continue to apply to these doors. Use of the screening procedures would be subject to the approval of the air carriers at a particular screening checkpoint(s) since they are responsible for their operation. If the airport operator chooses to control indirectly access points leading from a sterile area to a secured area as described above, then the airport operator must ensure that no access to the sterile area may be gained during the time that the screening checkpoint is not operational.

5. CONTROL AND ACCOUNTABILITY. Access media associated with systems, methods, or procedures which are developed in response to Section 107.14 must be subjected to the same accountability and control procedures as those of personnel identification systems. The media should be issued by the airport operator, and records of issuance should be maintained by the airport operator's office. Access media should be issued only to persons identified as having a job-related need for access to airport secured areas, and then only for specific access areas or zones. Applications for access media must be approved and signed by an individual who is authorized to sign for the employer. Each tenant/company should provide the airport operator with a signature verification card on each individual authorized to sign an application for access media. A process should be developed which will ensure that lost, stolen or unretrieved access media are immediately reported to the airport operator for immediate deletion from the data base and this action should be effected as described in paragraph 3(e) of this Circular. Periodic, documented audits by the airport operator should be accomplished to ensure that such access media are being reported as described above and that the job-related need for access media is being validated.

6. RESPONSIBILITY AWARENESS. Another critical element of systems, methods, or procedures designed to control access are the procedures to make employees aware of their security responsibilities. Every employee should understand that they must use their issued access media each time they enter or exit, if appropriate, airport secured areas. They must understand their challenge and reporting responsibilities if they observe an individual attempting to circumvent the system, and they must be instructed on immediate notification requirements should their access media be lost or stolen. They must also be instructed on proper use of the appropriate access media.

7. INTERIM CONTROLS. It is essential that during construction which may occur as a result of the implementation of Section 107.14, the airport operator ensures that effective access control is maintained in accordance with Section 107.13.

8. SITE SURVEY QUESTIONNAIRE. Appendix I contains a questionnaire which may be used to assist in determining the specific system, method, or procedure appropriate to meet the requirements of Section 107.14 at a particular airport. While developed to address the selection of automated systems, the concepts contained in the questionnaire may be applied to other systems, methods, or procedures as well.

9. AMENDMENT GUIDELINES. Appendix III contains guidelines presented in outline format which may be used when developing airport security program amendments in response to Section 107.14.

Carlene M Freeman

for Raymond A. Salazar
Director of Civil Aviation Security

Appendix 1

SITE SURVEY QUESTIONNAIRE

A. GENERAL

1. What is the physical size of the facility?

2. What will be the longest distance between the central controller and the card readers?

3. Will the facility have a large number of readers at remote locations which will require multiplexers to reduce the number of communications cables?

4. Will the card readers be shielded from rain, snow, or dust particles?

5. Will outdoor readers be contained in weather-proof housings in order to operate in extreme temperatures?

6. Will the facility be subject to extreme or frequent thunderstorms and associated lightning?

7. Will the system have transient suppressor to protect the equipment against transient electricity (surges) and lightning?

8. Will the system be subject to corrosive chemicals and/or explosive vapors?

9. Will the system be interfaced with Fire/Life Safety systems for emergency or fire exits?

10. Will the system be interfaced with alarm subsystems (i.e., flex-response) or CCTV?

B. SYSTEM FEATURES

1. How many employees will access a particular zone?

2. How many readers will the zone require?

3. Will some employees access the zone during certain times of the day?

4. Will some employees be allowed access to certain areas only?

5. What is the projected 5-year requirements for the system?

6. Will the system have backup power for uninterrupted operation during a power failure?

7. Will the system detect tampering with equipment or communications lines?

8. Will the system have features to prevent tailgating or double use of a card at the same door or portal?

9. Will the system require an alarm monitoring capability?

10. Will the system have a manual override capability?

11. Will positive personnel identification be used in conjunction with the card access system (i.e., Personal Identification Number (PIN))?

12. Will readers be installed at both sides of the access point for in/out operation?

13. Will the readers have an output relay properly rated to drive the electric door lock?

14. Will a photographic (ID) card be used in conjunction with, or same card as, the system access card?

15. Will the facility have photographic and badge assembly equipment?

16. Will the badge be worn/displayed by the employee?

17. Will the badge clearly indicate areas to which access will be allowed?

18. Will the badge require custom printing or encoding?

19. Will proof of background check be provided prior to issuance?

C. SYSTEM OPERATION

1. Will data forms be originated and transferred to the microprocessor-based controller in the stand-alone mode?

2. What approvals will be required on the data forms?

3. Will data forms require or include a description and/or photo of the employee?

4. Will data forms include a description of which employees have access to what areas at what times?

5. How will badges lost, stolen, or destroyed be deleted from the data base?

6. Will access to the central controller be limited, and if so, by whom?

7. Will visitor badges be issued? If so, is an expiration date included in the data base?

8. Will the visitor badges clearly indicate the access levels?

9. Will visitors be briefed on areas where they will and will not be allowed?

10. Who will have access to the data base at the main controller?

11. Will the badge be retained at the facility when the employee leaves same?

D. INSTALLATION

1. Will the central controller, printer, and CRT be located in an air conditioned room?

2. Will outdoor electric locks be of the heavy-duty type to ensure proper operation in all types of weather?

3. Will communication cables have spares to accommodate cable breakage and to allow also for system upgrades and expansion?

4. Will the communication cable be shielded against electromagnetic and radio interference?

5. Will the installation require that installers work in areas in or adjacent to hazardous materials (i.e, asbestos, PCB's, jet fuel, etc.)?

6. Will the system meet applicable Fire Codes at emergency exits?

7. Does the cabling meet applicable building codes (i.e., plenum cable in plenum spaces, high voltage in conduit, etc.)?

8. Will the implementation/installation schedule impact on air carrier and public traffic flows?

9. Is the installer offering project management, quality assurance, and systems testing before system acceptance?

10. Will "As Builds" be provided?

E. MAINTENANCE/WARRANTY

1. Does the manufacturer offer a warranty?

2. Will the equipment be installed before it is out of warranty coverage?

3. Will the system have a maintenance contract?

4. Will adequate spare parts be provided with the system?

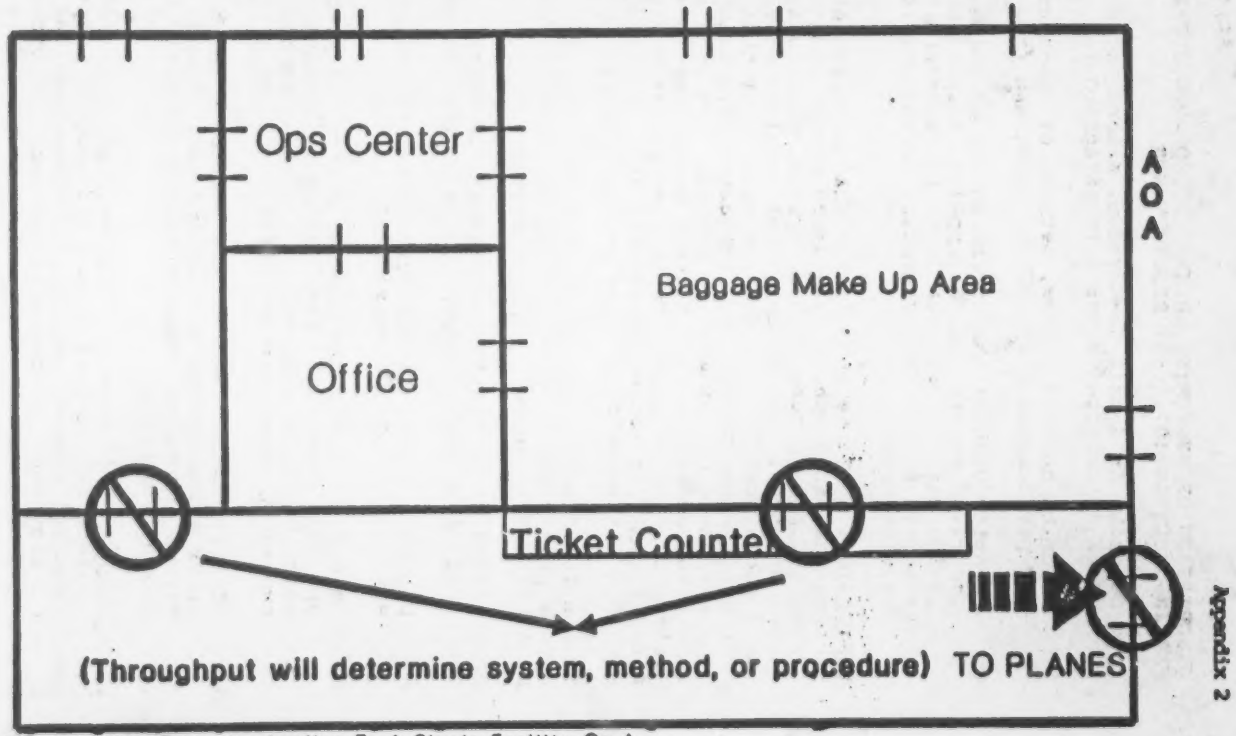
5. Will the facility want to train their own maintenance personnel or will the authority want trained factory personnel on site?

6. What response time will be required for maintenance repair?

7. Will the components and system be calibrated and tested periodically?

INDIRECT CONTROL OF ACCESS POINTS

Capturing several points downstream



Small Airport Example: Applies To A Single Facility On A Larger Airport, As Well.

Appendix 3

I. DESCRIPTION OF SYSTEM(S), METHOD(S), OR PROCEDURE(S) MEETING SECTION 107.14(a) REQUIREMENTS

A. Describe in detail the system, method, or procedure to be implemented subject to paragraph (a).

B. Describe how the system, method, or procedure meets the performance standards in paragraph (a).

C. Identify each of the access points to which the described system will be applied. Access points may be identified individually or by reference to an attached chart. Non-essential access points should be eliminated.

DISCUSSION: It is anticipated that multiple systems meeting the paragraph (a) standards may be used within the overall airport access control system, particularly at larger airports. The descriptions required under A, B, and C above must be provided for each individual or distinct system, method, or procedure. For example, separate descriptions must be provided for each computer-controlled access system, tightly controlled lock and key system, or staffed access control system at a given airport. (It is not expected that each access point within a given system will be so described.)

An annotated map or similar graphic illustration of the access points to be controlled by the "(a) system" should be submitted in support of this section.

II. DESCRIPTION OF ALTERNATIVE SYSTEM(S), METHOD(S), OR PROCEDURE(S) TO MEET SECTION 107.14(b) REQUIREMENTS

A. Describe in detail the system, method, or procedure used subject to paragraph (b).

B. Describe how/why the system, method, or procedure provides an overall level of security equal to that which would be provided by a system, method, or procedure under paragraph (a).

C. Identify each of the access points to which the alternative system will be applied. Access points may be identified individually or by reference to attached charts.

DISCUSSION: It is possible that multiple alternatives or "(b)" systems may be used within the overall airport access control system. The descriptions required under A, B, and C above must be provided for each individual or distinct alternative system, method, or procedure.

An annotated map or similar graphic illustration of the access points to be controlled by the "(b) system" should be submitted in support of this section.

A description must be included as to how fire/emergency doors will be controlled to the extent allowable under existing fire codes; e.g., who will respond to alarms?

III. CONTROL AND ACCOUNTABILITY

A. Control--Protection of System

1. Specify who is responsible for protection of the system.

2. Describe in specific terms how the system and its components will be protected from destruction and/or tampering.

3. Describe in specific terms how access media will be secured and controlled.

4. Describe how the data base will be protected.

5. Describe audit procedures.

B. Accountability

1. Application

a. Describe application process for access to restricted area.

b. A record of the following should be maintained:

(1) Serial number of media.

(2) Individual's employer.

(3) Issue date.

(4) Expiration date.

(5) Access authorization.

2. Responsibility

a. Specify who will be approving authority for access media.

b. Specify a procedure for designating an approving authority for each tenant/company on the airport.

c. Describe a periodic audit procedure and who will be responsible for auditing the system to ensure it is functioning as described.

d. Describe procedures for reporting lost/stolen or unaccountable access media.

e. Specify who will be responsible for ensuring access authority is denied once individual is no longer authorized. (Describe how this will be accomplished.)

IV. NOTIFICATION PROCEDURES

A. Each airport operator must include in the Airport Security Program amendment notification procedures as to who is responsible for notifying the airport operator of any routine deletions or additions to the data base and a description of how this is to be

accomplished. The amendment must also describe how the airport operator will update the data base after receiving such information. (See Section 3(e).)

B. The amendment must also describe an "immediate" notification procedure should any change in access authority occur that would pose a threat to airport or air carrier operations and the airport operator's responsibility to update the data base accordingly. (See Section 3(e).)

V. CONTINGENCY PROCEDURE

Describe the system, method, or procedure that will be used if the primary system or any portion thereof becomes inoperable or otherwise incapable of performing its described function.

VI. EDUCATION AND AWARENESS

Describe a security education and awareness procedure for educating and making each person with authorized access under the system aware of his/her individual responsibilities, to include:

A. Access media must be presented at time employee enters a secured area.

B. Challenge procedure relative to unknown/unbadged person.

C. Reporting responsibilities if unauthorized person is observed, or any person is observed, attempting to circumvent the system.

VII. IMPLEMENTATION SCHEDULE

A. Each airport operator must include in the Airport Security Program amendment an implementation schedule. The implementation schedule must state that the system, method, or procedure chosen will be fully operational within the specified timeframe that is applicable to the airport's phase.

1. Phase I - 18 months after amendment approval by FAA.

2. Phase II - 24 months after amendment approval by the FAA.

3. Phase III - 30 months after amendment approval by the FAA.

4. Phase IV - 30 months after amendment approval by the FAA.

B. The implementation schedule may include time phases in which certain terminals, gates, and other access points may become operational.

C. The Airport Security Program amendment must specify the date on which the entire system, method, or procedure will be completed and fully operational. This date may require revision, as appropriate, to accommodate the amendment review process. In any event, the date specified must be within the specified timeframes.

VIII. COVER LETTER FROM AIRPORT OPERATOR

Airport operators seeking to implement any alternative system(s), method(s), or procedure(s) as provided in paragraph (b) of Section 107.14 must provide a justification statement in the following form.

The airport operator must submit, in the form of a separate cover letter, a clear explanation of why the performance standards prescribed in paragraph (a) cannot be met with regard to particular access points or at specific areas or locations on the airport.

Reference should be made in the statement to specific section(s) of the required amendment in which a description of the alternative system, method, or procedure may be found.

SERIOUS PROBLEM OF ACCESS AT AIRPORTS

Senator LAUTENBERG. Let me ask you this. The problem of access at airports is a very serious one and I am not sure but I think I heard Secretary Skinner say that it was almost impossible—and correct me if any of you know differently—to secure these areas and I wonder whether that is the prevailing view? I want to be very careful about that attribution because it is something that I think that he said. Is this a view at FAA, though you keep working on it? Is it in the area of impossibility?

Mr. BELGER. Well, we are in this program for the long haul. Large airports are basically cities unto themselves—30,000, 40,000 employees, 24-hour-a-day operations, thousands of ID badges, hundreds of access points. It is extremely difficult to control.

My approach is that we have to—it is almost like putting your finger in the holes of the dike. You can look at the hundreds of holes and say gee, I will never be able to fill all the holes. But you have got to try to fill the ones that you can, I think, and that is the approach we take.

It is extremely difficult. Each airport is unique unto itself, in terms of configuration, in terms of the physical ability of the airport to lend itself to access controls. It is really a difficult, tough question.

We have got to continue to work with the airport operators. We have got to continue to work with the industry leaders to develop a system that does as much as we can. We will never turn airports into fortresses and that is not our intent, but we have got to do what is reasonably, humanly, and technologically possible.

CONTROLLER WORK FORCE

Senator LAUTENBERG. One of the things that you took some comfort in was the fact that you built the controller work force up. The fact is that last year Congress established a work force requirement for controllers: 16,800 controllers and 10,832 FPL's for performance. Your report on March 31 said that you had 16,445 controllers and 9,633 FPL's. Has what I have said so far been accurate?

Mr. WHITTINGTON. Yes.

Senator LAUTENBERG. Are you going to be able to meet that statutory commitment to the full performance level of staffing that we wanted?

Mr. WHITTINGTON. No, sir; I do not believe we will and we will be sending a letter to you on that. We will meet our controller work force numbers, but for the FPL's it appears that we will be about 500 short.

Senator LAUTENBERG. What do you think is the principal reason for that?

Mr. WHITTINGTON. Well, the main reasons are controllers moving up in the ranks and transferring people to new locations. When an FPL transfers from one facility to the other, then he or she loses his or her FPL status at that time and we would probably have 1,000 or 2,000 people in that category.

What I try to measure is the fact that we will have people who are qualified on at least two positions on every position of operation; that the FPL is really not the best measure of the status of our system's ability to put qualified people in the positions. At this point we will be about 500 FPL's below target by the end of the year.

Senator LAUTENBERG. Are we losing people? Is the maturation rate slower than we thought?

Mr. WHITTINGTON. I do not think we are losing any faster right now than——

Senator LAUTENBERG. Do we have fairly high turnover rates in the controller staff?

Mr. POLLARD. Not from a loss standpoint once they become FPL's because our work force obviously is fairly young. The FPL mandate, or objective that we had, could be met by mismanaging the system. That is by retaining people at lower level facilities where they are FPL's rather than moving them to the New Yorks and Chicagos and Atlantas and Los Angeles, where they could be more productive and of more benefit to the system but where they lose their FPL status.

FPL TRAINING

Senator LAUTENBERG. You would not do that. We would not want you to do that. The question is, you say once they are at FPL status they do not usually leave. But how about the training process to get people to FPL status? Is that—does that have high turnover levels? Are we taking in people with lesser skills than we used to?

Mr. POLLARD. No, sir; in fact, our selectees have rather high scores. We are still selecting people in the high 80's and above. We lose, as you probably recall, sir, about 40 percent of those people at the academy and then we lose some other folks at the facilities and it depends on, at what level of training they are in at the facility and what type of facility, as to whether they become a loss to the system. If they have progressed to a certain point they can be reassigned to a lower activity facility.

What we are concerned about—what really has been the real barrier—is the length of time. Our training process is very labor-intensive and basically once you get to the operations floor—the control room floor—your training on the position is on a live posi-

tion, being monitored by another controller and obviously that is kind of a catch-22 situation.

What we are planning over the next couple of years for a tremendous increase in simulation and doing a lot more of the training in a laboratory environment and shortening the requirements of the controller's training time on the floor.

AGING AIRCRAFT

Senator LAUTENBERG. We had quite an interesting discussion with Senator Harkin here a few minutes ago about aging aircraft and structural stress. The hundreds of airplanes that are over 20 years old and are still flying, many of them are flying much longer than their designers anticipated. I guess once you have amortized your investment, if it is a 20-year life it starts to roll in some pretty good profits.

The fact is that we still have safety as our primary concern and is there any reason to believe that we should not simply cut off these aircrafts' service after 20 years, or some fixed period of time?

Mr. WHITTINGTON. Well, we certainly have looked at that and Mr. Broderick can talk further on it, but we do not feel that that should be the driving element. We are looking at—well, he talked about the number of takeoffs and landings and pressurization and so on. There are various measures. What part of country did the aircraft operate in? Geographical factors—the environment and so on—are factors, too.

What the study teams are coming up with is that you have to recognize age, but do you continuously repeat your visual inspections and nondestructive testing or actually replace parts at set time limits for almost all the parts of the aircraft? We are leaning toward the latter.

Mr. BRODERICK. That is exactly right. For all practical purposes aircraft do not age uniformly, part by part. You have thousands of parts in the aircraft. Some of them are not good for anywhere near 20 years and others are good for a lot more than that. We have today the technology to analyze the design, combined with service experience validating that analysis, to tell you what part is going to fail at what time.

It is a common misconception that the damage that occurred in the Aloha tragedy was something that was a surprise to the FAA. We had, in fact, known about the possibility for damage in that aircraft in that area for quite some time. In fact, in 1972 there had been the first service bulletin issued by Boeing.

The problem was that we had relied on maintenance programs—repetitive, boring, monotonous maintenance programs—to keep looking in the same place month after month after month for a crack that might develop in that area.

We have now decided that that kind of procedure, which is subject clearly to human error, is not appropriate. Instead of relying on inspection to detect small cracks we back up from the period at which we know cracking will initiate at the earliest and for things like this just replace the part and so——

Senator LAUTENBERG. A section of the fuselage? A section of the skin?

Mr. BRODERICK. Wherever we are talking about.

Senator LAUTENBERG. If you could tell that a problem like this could occur, then I think you have to get fairly radical and say that you cannot, in my view, possibly catch every one of these things in advance. If it requires that kind of inspection, if it is that kind of sensitivity, it involves quite a bit of risk. I mean, those pilots were brilliantly skilled in handling that, just like the United pilots.

Mr. BRODERICK. In point of fact, with the computer technology that we have today and the science of what is called fracture mechanics that tells you, for a given kind of material and a given level of stress and a given environment what kind of crack growth are you going to see, we can predict and we must predict for every part in an airplane when that part will be subject to cracking. That is fundamentally what we are doing when we approve the design.

What we have done in the past is relied on inspection—we said, OK, beginning 10 years or 20,000 flights after this aircraft comes out of the production line, start looking in that area for cracks. What we would say now, today, in this hypothetical example is, after 8 years or 16,000 cycles after it comes off the production line, replace that part, because it is subject to cracking within a couple of years from now.

Senator LAUTENBERG. Is there no limited life to an airplane?

Mr. BRODERICK. Not to an airplane that is properly maintained in the manner I have just described. Because there are literally some parts—if they are not subject to corrosion as some of them are not—which are designed such that the stresses are below levels which affect them adversely. They can literally last, some of the parts of the aircraft, for hundreds of years. As a practical matter, of course——

Senator LAUTENBERG. So the only thing that should take airplanes out of service is cost-effectiveness, or noise, or something like that? Well, noise can be changed too.

Mr. BRODERICK. It certainly has from the first generation of jets.

QUALITY CONTROL STANDARDS

Senator LAUTENBERG. It is not comforting to hear you say that. I know about the old airplanes, but at some point I would think that the safety considerations dictate something more than just an inspection, but that is a little hasty for this kind of a discussion.

There have been reports of quality control problems—aircraft manufacturers, particularly Boeing. What actions have you taken during the past year to assure that the aircraft manufacturers have established and are adhering to proper quality control standards?

Mr. BRODERICK. Senator, we have worked with Boeing, Douglas, Lockheed, and Airbus, to review their manufacturing quality control programs. Specifically in the case of Boeing, we have had two quality assurance system analysis review teams in at both the Renton and Everett facilities to review generally what is going on.

For the four aircraft that are currently in production at those facilities—the 747, 767, 737, and 757—we have initiated with Boeing a system-by-system review from the engineering concept all the way through to the production floor for every system in every air-

plane, to review the quality of the product coming out. That is currently underway and we expect it to be finished sometime in the calendar year 1990, for all four aircraft.

So we have looked generally at the systems in some depth, specifically with regard to things like fire extinguisher wiring, or fire warning system wiring, we have of course addressed those in much more detail through air worthiness directives and required modifications to the airplanes.

AIRPLANE MANUFACTURERS

Senator LAUTENBERG. Do you publish problems that you see that occur with some frequency? I mean, what is the incentive if an airplane manufacturer has a corner on a particular market and they can sell whatever they make? What is the incentive for them to really crack down on this and say that everything we do is going to be made to the best of mankind's ability to do it.

We are talking about airplanes and I was distressed when we heard about the cross-wiring in one of the airplane accidents that took place. I would think that we really have to get very, very tough on someone like that. It is too bad that there cannot be a public market response.

Mr. BRODERICK. I think actually there is. I mean, the worst thing in the world that can happen to an aircraft manufacturer, or an aircraft model within that manufacturer's facility, is to be labeled unsafe or unreliable.

But beyond that market pressure, we do have authority to fine people and suspend or revoke production certificates. Of course, in the case of the manufacturers of aircraft in the United States we have fined them in the past and will not hesitate to do so in the future.

PILOT EXPERIENCE

Senator LAUTENBERG. Well, I hope we can develop very tough policy, because when you have lead times of maybe 10 years on aircrafts' purchase and companies are backed up with back orders, they do not have to really rush to correct things. It is a seller's market as you very well know.

So I think you have to make certain that the inspection requirements are very rigid. Currently we are finding that the average pilot has about a 1,500-hour jet experience resume, compared to 2,300 hours in the early 1980's. Does that concern you?

Mr. BRODERICK. Well, yes; pilot training and pilot experience as a whole is something that we are watching carefully, but more than watching, what we are doing is completely revamping our pilot training requirements and the pilot training syllabus and curriculum.

We are going to have to look in this country in the coming years to a civilian pilot force rather than one that is trained in the military. In doing that we have got to work smart, take advantage of the technology that is available in simulators and recognize that training from the very beginning—ab initio training, as it is called—with an aim toward the airlines is something that has come of age.

In Europe, that has been done in the past with some success. Today, we are working with universities and the training centers—people like Simuflight and Flight Safety International, with these vast simulator capabilities. These are organizations that we are working with now in conjunction with pilots in the private sector, just average pilots and airlines to develop completely new concepts of pilot training.

Senator LAUTENBERG. Is there a minimum amount of time that a pilot has to have logged in in order to get certain levels of certification?

Mr. BRODERICK. Yes, sir; depending on the level of commercial or airline transport certification it can be up to 1,500 hours minimum. Typically, it is, of course, a lot more than that.

NATIONAL DRIVERS REGISTRY

Senator LAUTENBERG. We got availability of the National Drivers Registration Data Bank available to FAA. And the FAA was going to establish a system to access this data bank and compare its records against the airmen and aircraft registry files. Can anybody tell me what the status of that is?

Mr. BELGER. Yes, sir; I would be glad to.

We have developed a notice of rulemaking that would put in place a mechanism to allow us access to the National Drivers Registry, along with some other things in this area. That NPRM is in OMB today. It is my understanding that they are giving it a very quick review.

Senator LAUTENBERG. Why has it taken this long, Mr. Belger, to get this far?

Mr. BELGER. It took the FAA a long time for several reasons. There were concerns that arose in the past year or so about what ought to be included in the notice of proposed rulemaking, how far should we go, as far as requiring airmen to do certain things for one or more arrests for DWI or DUI's. There were also some concerns that developed, arising from the criminal prosecution of some of the cases that were referred by the IG, it was necessary for us to work out the arrangements with the Justice Department and others to ensure that we did not do anything that would jeopardize their criminal cases.

It took longer than it should. There is no doubt about that. It took a long time.

NAS PLAN

Senator LAUTENBERG. We want to have that information available. And I have worked very hard on making that available, not only to FAA, but other agencies of Government, too. And we saw the incident at Valdez and we now have the Coast Guard with access—we are proposing that the Coast Guard have access to that as well.

I want to try to wrap this up now. I want to ask you a couple of questions about the NAS plan. You are asking for $1.9 billion for F&E. How much of that is specifically for NAS plan?

Mr. WHITTINGTON. $1.4 billion.

Senator LAUTENBERG. Is that amount adequate for NAS plan to stay on schedule?

Mr. WHITTINGTON. Yes, sir; I do believe it is.

Senator LAUTENBERG. What did you request from OMB for the NAS plan?

Mr. STOER. The total request for the facilities and equipment budget was around $2.345 billion.

Senator LAUTENBERG. How much of that was specifically for the NAS plan?

Mr. POZESKY. $1.6 billion.

Senator LAUTENBERG. $1.6 billion?

Mr. POZESKY. Yes.

Senator LAUTENBERG. If you need $1.6 billion, why are you asking for $1.4 billion?

Mr. POZESKY. Mr. Chairman, we have made certain adjustments. We have moved some programs out in time. We have reshifted the production funding requirements to more closely match the year in which the production would be done. We have taken some of the projects off of what we call full funding, which really means that there will be a further downstream requirement for the funds.

And, in fact, Mr. Whittington's opening statement talked about what we call a bow wave, which is clearly a future year requirement for increased funds in order to keep the current programs on target.

So we have done some budget tricks, if you will, budget adjustments, if you will, to keep the programs on target, but we have moved the funding needs into the future years.

FEDERAL PROCUREMENT PROCESS

Senator LAUTENBERG. We hear a lot of criticism about the difficulty of Federal procurement processing that the FAA has had to follow. And we have heard further that it results in costly, unwanted delays in the NAS plan. Do you agree with those critics?

Mr. WHITTINGTON. Well, they talk a lot about Federal procurement delays. In my own organization I have taken a look at that. Some of the processing actually is within our own shop. There are ways we could do things better, and we are, through delegations and so on.

There are a few areas, and we are looking at this, where we maybe should be sending some legislation to the Hill getting FAA some separate types of authority to work our projects.

I have looked at the NAS plan and had a hard time, talking to Marty and the experts in the area, of identifying some real problems, because of the procurement process in the NAS plan, where we could say, well, this sets this program back. I am not sure, Mr. Chairman, that I could identify a major problem.

Now, I would let Marty add to that or correct it if you like.

Mr. POZESKY. Mr. Chairman, I have been involved from the program side on the procurement, and I have what I would call a nonprocurement technical view. I mean, not a precise view of all the rules and regulations, a programmatic view.

It is my observation that the single biggest problem that we have experienced is a continuing inability to do what we call sole-source

procurements. We are aware of the Congress and the people's desire to limit that kind of procurement, but where you do have legitimate needs for that, this has been a burden in the past, and it is still very difficult to really exercise the sole-source objective. It is possible, and in a couple of cases we are doing it, but it is difficult.

On the other side, we always find ourselves in the program dilemma when you have, let me use an example, a fixed-price contract. What is the Government's role in going into a contractor's plant and directing him on how to carry out his program?

If you do too much of that, you can step over the line and become a liable for over-directing and costs incurred. If you do too little of that, you are subject to the criticism of not providing adequate direction.

So the laws and the capabilities are very restraining from a programmatic sense. And I think additional flexibility would certainly be useful to the program office.

Senator LAUTENBERG. So reduce, even though it sounds like it is against the best interest of the process. Would you eliminate some of the competitive procurement process? You said you are sole-source in some cases, and that, therefore, suggests that you do away with some of the competitive stuff. And by the way, I am not inclined to disagree in some situations, because you want to move these things along, get a reliable contractor. Unfortunately, sometimes even the most reliable prove to have problems.

Mr. WHITTINGTON. That is the area where we probably will consider sending some legislation up, to limit the competition in certain areas. In other Federal agencies, some of them do have that authority now.

Senator LAUTENBERG. Thank you, Mr. Whittington and your colleagues, for being with us for such a long period, and for the candor that occasionally slips out there. That is not to say you are not being frank at other times, but there were a few admissions that I think were important to make for the credibility of the whole process. And I thank you for it.

STATEMENT FROM THE GENERAL ACCOUNTING OFFICE

We have testimony from GAO regarding the voice switching control system and the NAS plan increased funding needs, the implementation problems and FAA's human resources initiative. That will be in the record and give you a chance to look at that. I am sure you have seen it.

[The statement follows:]

STATEMENT OF SAMUEL W. BOWLIN, DIRECTOR, DEFENSE AND AERONAUTICS MISSION SYSTEMS, INFORMATION MANAGEMENT AND TECHNOLOGY DIVISION, GENERAL ACCOUNTING OFFICE

Mr. Chairman and Members of the Subcommittee: My testimony today will be on the Federal Aviation Administration's (FAA) Voice Switching and Control System (VSCS), a major agency effort to modernize its communications. VSCS, currently estimated to cost over $786 million, is intended to provide air traffic controllers with a computer-controlled system for ground-to-ground and air-to-ground voice communications.

VSCS is to be implemented at 23 major en route centers, which control air traffic between airports, and is expected to provide communications for the controller workstations that will serve up to 430 positions at each center. FAA expects this

new system to significantly improve communications capabilities because it will be more reliable, and easier and less costly to maintain than the existing system.

VSCS is to provide voice communications for new controller workstations that are being developed under FAA's Advanced Automation System, a critical element in the National Airspace System Plan. The Advanced Automation System, with its new hardware, software, and workstations, is expected to result in many improvements, such as more efficient handling of air traffic. The new workstations, now scheduled for delivery in August 1992, cannot be used until VSCS is ready. Whether VSCS will be ready on time is uncertain because the project continues to encounter cost increases, schedule delays, and technical difficulties. Further, we are concerned that, in an effort to remain on schedule, FAA will defer the testing needed to ensure it acquires a system that will work as intended.

In October 1986, FAA awarded VSCS prototype development contracts to Harris Corporation and American Telephone and Telegraph (AT&T) Technologies, Incorporated. Each contractor is to design, develop, and install one prototype system. FAA intends to award a production contract this November to the contractor who develops the prototype that best meets requirements. The original estimated cost of both prototype contracts was $67 million; this cost is now estimated to run more than $145 million.

Total project costs have more than tripled. The estimated cost to design, develop, produce, and install the system has risen from $258 million in 1982 to the current estimate of over $786 million. FAA officials say the original cost estimates were too low and did not consider all relevant costs. Further, these officials said that contractors underestimated the complexity of the project.

Both prototype contractors have encountered unanticipated technical difficulties in meeting VSCS requirements. Their original proposals called for using off-the-shelf hardware and software. After contract award, when the contractors obtained a better understanding of the system's requirements, they learned that significant changes were required to both their proposed off-the-shelf hardware and software designs. In addition, both contractors underestimated the amount of custom software needed, and found that they had to develop additional software to meet requirements.

Milestones for the project have been continually missed and further delays may occur. For instance, the scheduled date for VSCS to be operational at the first site, once projected as 1986, is now estimated at 1992. In addition, Martin Marietta—which is under contract to FAA to provide technical and programmatic support for nearly all facets of the National Airspace System Plan—estimates that project milestones could be further delayed. For example, Martin Marietta believes that the agency's estimate for the system to be operational at the first site could be delayed up to 4 additional months, to September 1992. Further, Martin Marietta has maintained that the prototype contractors may be striving to meet FAA's target dates at the expense of their work quality.

In an effort to expedite delivery and avoid delaying the operation of the new controller workstations, FAA has reduced the testing required before it awards a production contract for VSCS. Independent operational testing and evaluation of the system, originally scheduled to be performed during the project's prototype development phase, is now to be done after contract award. This testing was to verify that the system would work as intended and to demonstrate the operational effectiveness and suitability of the prototypes. Instead of this testing, FAA now plans that before awarding the production contract in November 1989, it will (1) use the results of selected factory acceptance testing performed by the contractors to determine whether their systems meet critical requirements; (2) perform independent tests of the prototypes at the contractors' plants, including assessing the systems under heavy traffic loads; and (3) use the results of limited operational tests, including having air traffic controllers evaluate the contractors' prototypes, to assess the operational suitability of the systems. FAA officials stated, however, that while they plan to complete these tests, they could not guarantee that they would be completed before awarding the production contract.

To preclude the government from buying a system that will not perform as expected, we believe it is critical that key tests be completed and evaluated before awarding the production contract. At a minimum, FAA needs to have (1) the results of complete factory acceptance testing to ensure prototypes meet system requirements; (2) an independent verification of the results of the contractors' testing, including an assessment of the prototypes under heavy work loads; and (3) an assessment of the operational suitability of the system. Office of Management and Budget Circular A-109, which provides guidance to federal agencies on acquiring major systems, reinforces the importance of testing. It states that a production commitment

should not be made until a system's performance is independently tested in a realistic operational environment.

The problems that result from proceeding to production without adequately testing a system are well documented. We previously reported that FAA's lack of testing prior to committing to production contracts contributed to delays ranging from 1 to 8 years for many of the agency's major systems.[1] In addition, testing before production generally reduces overall system cost because the earlier changes are made in the development process, the less expensive they are to make.

Because VSCS continues to experience development problems, Advanced Automation System workstation implementation may be delayed. The Advanced Automation System workstation is currently scheduled for delivery to the first operational site in August 1992. To meet the terms of the Advanced Automation System contract, key components of VSCS need to be delivered and certified operational 90 days before the workstation is to be delivered to the first site, or currently May 1992. However, Martin Marietta estimates that VSCS may not be operational until September 1992.

If the new controller workstations cannot be used because of delays in the VSCS project, the government will not have met its obligation under the Advanced Automation System contract, and could incur additional costs and delays. The Advanced Automation System contract contains no provision to lessen the consequences if VSCS is delayed.

Mr. Chairman, the problems I have just mentioned will be described in detail in a report we plan to issue shortly. We plan to make recommendations to the Secretary of Transportation that call for needed testing to be completed before making a production decision and for exploring possible changes to the new workstation contract that might mitigate the adverse consequences of VSCS delay.

SUBMITTED QUESTIONS

Senator LAUTENBERG. We will have other questions for you in writing. We would ask your prompt response on those from Senators Byrd, Harkin, Mikulski, Kasten, Grassley, Burdick, Cochran, and Boschwitz and Durenberger.

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

[1] *Microwave Landing Systems: Additional Systems Should Not Be Procured Unless Benefits Proven* (GAO/RCED–88–118, May 16, 1988).

QUESTIONS SUBMITTED BY SENATOR LAUTENBERG

FAA OVERVIEW

SENATOR LAUTENBERG: Although the budget you have proposed for fiscal year 1990 represents about a 17 percent increase over the current fiscal year, such a large increase may not be possible, particularly if a sequester is required to meet the targets established by the Gramm-Rudman legislation. The Budget Committee has estimated that a sequester would reduce your budget by $700 million from the current services level. Essentially, this would provide you with about $6.3 billion.

What actions would be required if a sequester were to happen?

ANSWER: As we understand the baselines that would operate under a sequester in October 1989, the funding levels for FAA would fall below a current services level for the agency. Because FAA will have a net increase of about 1,900 employees during FY 1989, the cost of just annualizing those additional salaries plus other annualization will require an increase of about 9 percent in our FY 1990 operations budget just to stay at the September 30, 1989, employment level. If the sequester levels were sustained all through fiscal year 1990, thus cutting the FAA below a "status quo" staffing and operating level, the following impacts are likely:

All FAA recruiting and hiring would be suspended as of August or September of this year following the CBO and OMB reports on sequester. A year-long hiring freeze might be essential since over 70 percent of the Operations budget is payroll and most of the balance is mandatory spending such as communication services (FAA is the largest civilian agency user of private communications circuits), rent and similar costs essential to operate the equipment of the air traffic control system;

A detailed occupation-by-occupation, facility-by-facility assessment would be made to determine if a trade-off could be made to allowing limited hiring of controllers and technicians;

Actions would be taken to absorb the mandatory costs through attrition of existing employees, including air traffic controllers, maintenance technicians, safety and security inspectors and support staff;

Staffing imbalances would be exacerbated during the year in all disciplines probably requiring some curtailment of hours of service, slower response time in restoring air traffic control equipment to service, an increased backlog in safety and security inspections;

The pay demonstration to be implemented on June 18, 1989, would be suspended;

No new facilities or communications circuits would be activated;

Training would be held to the already unacceptably low levels currently being experienced in FY 1989;

A serious backlog in training and facility commissioning would set the deployment of the NAS Plan back by at least a year, and perhaps more;

The point of the foregoing is that the FAA operations are very fragile and highly dependent upon an even flow of hiring and training. A year-long hiatus would take about three years to recover from, and FAA would have to operate in an accelerated and costly "catch up" mode during that entire period. Our experience with the sequester of 1986, which was mild compared to what might occur in 1989, was that it took us 18 months to get back on track with hiring and training brought about by the hiring, relocation and training cutbacks during the last 6 months of FY 1986;

In our Facilities and Equipment area, a sequester would be far more devastating than in Operations. A sequester would hold the FAA to approximately FY 1989 levels whereas we have numerous contract options that need to be exercised in FY 1990 that require a half billion dollar increase as proposed in the President's budget. A sequester would require the FAA to forego certain contract options and would require renegotiation of other major equipment contracts. A worst case scenario would require renegotiation of the Advanced Automation System contract awarded last year to IBM. Much of the cost savings attributable to competition for that contract might be lost in future years. For all intents and purposes, a year-long sequester in F&E would require a major restructuring and rescheduling of the NAS Plan because FY 1990 (and FY 1991) are such critical funding years for NAS Plan scheduling.

SENATOR LAUTENBERG: There continue to be proposals to change the status of FAA either by making it an independent agency within the Federal government or by transferring some of your functions to a public or private corporation. What is your view of these proposals?

ANSWER:

o FAA should remain in the Department of Transportation.

o FAA benefits from cabinet level representation which provides access to the President and facilitates Congressional relations.

o The public benefits from having matters of air transportation managed by a cabinet official with a broad, multi-model transportation perspective.

o Recently, a number of initiatives have been taken to accelerate modernization of the airport and airway system and ensure consistent, expeditious action on aviation safety issues. These include delegation by DOT to FAA of additional procurement authority, the pay demonstration project and requests for additional SES positions, and FAA's reorganization encompassing the concept of straightlining.

SENATOR LAUTENBERG: The Aviation Safety Commission proposed a 7-year term for the FAA Administrator. What do you believe would be the advantages and disadvantages of having a 7-year term for the Administrator?

ANSWER: The major theoretical advantage of providing a fixed term would be increased management continuity. The average tenure of FAA Administrators between November 1958 and July 1987 was 2.9 years. With each change in Administrators there also tend to be shifts in some of the key FAA subordinate positions. A 7-year term

may be better suited to the long term character of FAA programs which often have a gestation cycle of 7 or more years. By extending the Administrator's term, Administrators will be able to both start and finish programs. There will therefore be increased accountability within the FAA and between the FAA and Congress.

Since Federal executive salaries are relatively low, obtaining a commitment for 7-years from a prospective Administrator with acceptable credentials may be difficult. While the Secretary may retain accountability for FAA, his ability to build a responsive management team together with the appointing President could be somewhat impaired. Also it may be more difficult to maintain satisfactory working relationships between the FAA, the Secretary and Congress if personality conflicts develop.

SENATOR LAUTENBERG: What is your assessment -- is flying less safe than it was five years ago? If it is less safe, what are you doing about it, and if it isn't less safe, what, in your view, is causing this perception among the traveling public?

ANSWER: The United States continues to have the safest aviation system in the world. However, the public perception of aviation safety is extremely sensitive to developments such as the Pan Am 103 accident, reports of near midair collisions, airline management/labor disputes, as well as aircraft structural issues. These perceptions do not reflect actual safety statistics. For example, the total system accident rate (number of accidents per 100,000 flight hours) has decreased by 29 percent from 7.24 in 1984 to an all time low of 5.15 in 1988. The FAA continues to develop programs and regulations to enhance the safety of our national aviation system. We have, with the support of the Congress, increased resources in critical areas such as air traffic control, security, and aviation inspectors.

SENATOR LAUTENBERG: Last year, the Aviation Safety Commission concluded that the present government safety regulatory structure is inadequate to deal with future growth and technological change. What is your view of how well your agency has done in the past, and how well prepared are you to cope with the safety problems of the future?

ANSWER: Safety has always been a primary mission of the FAA. The Federal Aviation Act of 1958 directs FAA "to promote [the] development and safety" of civil aviation. Without safety, civil aviation could never have developed. That the United States enjoys the world's most extensive civil aviation system, and one of the safest systems, suggests that the FAA has fulfilled its safety mission admirably. However, we remain aggressive advocates of aviation safety, and are well prepared to cope with the safety problems of the future, as the following recent efforts indicate.

The most thorough reorganization in the agency's history assures greater consistency among the various regions in the interpretation, implementation and enforcement of national policies. FAA also established the Associate Administrator for Aviation Safety to provide independent evaluations of FAA's safety functions, to monitor implementation of recommended improvements, and to be a proactive safety advocate within FAA.

FAA has institutionalized the National Aviation Safety Inspection Program for comprehensive safety inspections of air carriers, and System Safety and Efficiency Reviews, in which interdisciplinary teams from FAA, other public agencies and the industry conduct comprehensive evaluations of all activities that

affect aviation safety in and near a facility, including: air traffic control towers and centers; flight service stations; airway facilities; civil aviation security; and safety inspection.

FAA continues to analyze the reconfiguration of airways to enhance the safety and efficiency, as in the Expanded East Coast Plan and the establishment of some 23 Terminal Control Areas.

FAA also made significant progress in the technology needed to detect ceramic or plastic explosives with the development of thermal neutron activation (TNA) detection devices. TNA eventually will be operational in all U.S. airports serving international traffic. FAA also continues to evaluate an advanced vapor detection portal screening system that will be even more sensitive than the TNA. Other recent, major advances in technology include: the Traffic Alert and Collision Avoidance System; full operational status of the HOST computer at all en route centers; Mode C transponders in continental U.S. air space; and windsheer alert systems (doppler and NEXRAD).

SENATOR LAUTENBERG: How do you measure the effectiveness of your agency and the programs you administer? For example, do you have specific goals or objectives in areas such as operations per controller, cost per operation, operational errors, etc., and, if so, how well are you doing when compared with five years ago?

ANSWER: The FAA has a well established goals and objectives program. The objectives cover such areas as reducing general air traffic delays, reducing operational errors, and reducing general aviation accidents. We have a Performance Indicator Program that measures our progress toward these objectives. We have made steady progress in all of our performance areas -- dramatic in some -- in the last five years. We will provide, for the record, a copy of our last year's report.

FAA also supports a productivity improvement program and has developed such indicators as cost per passenger moved and timeliness rates for student controllers to reach full performance status.

FY-88 INDICATORS REPORT
(October-September)

OBJECTIVE
PERFORMANCE
TREND
IMPACT '88

THE CONTENTS OF THIS DOCUMENT ARE PRELIMINARY DATA SUBJECT TO REVISION

Office of Management Systems
AMS-420

December 1988

FAA COALS

In charting a future vision of excellence, FAA is taking a new approach to agency goal-setting keyed to new values and concern and commitment for people.

This has evolved into seven goals. More may be added, others replaced, as the needs of our agency and users of our services change with the passage of time.

1. Enhance U.S. Aviation Safety.

2. Build an FAA culture which nurtures achievement of people's aspirations and provides a management process for realizing individual, as well as organizational objectives.

3. Develop, refine, and implement FAA programs and long-range plans.

4. Assure effective and efficient utilization of human, fiscal, material, and airspace/airports resources.

5. Foster equal employment opportunity programs.

6. Reduce regulatory and administrative burden.

7. Promote USA/FAA preeminence in the world aviation community.

FAA OBJECTIVES - FY 1988

1. Improve overall U.S. general aviation safety level by 5 percent as indicated by tracking nationally established safety performance indicators, including the general aviation performance indicators; and develop better indices in conjunction with the National Technology Assessment, and other skilled parties.

2. Initiate the Administrator's special emphasis programs to:
   a. Keep the public better informed of the FAA's activities and accomplishments.
   b. Initiate a top-to-bottom review of pilot training.
   c. Require air carriers periodically to conduct internal audits of their compliance with all applicable aviation safety and security rules; and continue the design and implementation of civil aviation security procedures to ensure the safety of the U.S. traveling public worldwide.
   d. Accelerate recruitment and training of new controllers by:
      (1) Streamlining the hiring process.
      (2) Devoting additional resources to state-of-the-art training technologies.
   e. Emphasize professionalism and pride within the FAA work force, increase its involvement in decisionmaking, and contribute to an improved FAA culture by:
      (1) Continuing implementation of followup actions resulting from the 1986 employee survey and conducting another survey.
      (2) Enhancing employee participation through employee participation groups, joint union-management cooperative efforts, and improved selection and training of supervisors and managers.
      (3) Including subordinate input in the assessment of supervisory/managerial performance.
      (4) Increasing the representation of minorities and women over previous year level by 1 percent for each group.
   f. Increase our en route airspace capacity by establishing multiple routes between congested terminal areas and improve NAS system performance so that:
      (1) Average daily delays of 15 minutes or more are reduced by 15 percent of the 497,000 FY-88 projected delays.
      (2) Operational errors are decreased by 2 percent from the FY-87 base.
   g. Seek public comments on safety, security, and service.
   h. Accelerate the procurement process by reducing paperwork, providing additional resources to our contracting offices, and through other appropriate measures.

i. Increase the maximum civil penalty for safety violations by commercial operators from $1,000 to $10,000.

j. Take the lead in:

(1) Developing an action plan to assist state and local governments in building new airports and expanding the capacity of existing airports.

(2) Identifying potential delay reduction projects.

(3) Funding eligible projects through grant assistance.

3. Through automation, other technology, or procedural changes, each Administrator's Management Team (AMT) organization will implement:

a. A program that places special emphasis on reducing the administrative time to respond to internal and external requests.

b. A program to improve the quality of service to the public in concert with modifying existing programs to be most cost efficient.

4. Meet projected FY-88 work force targets for air traffic, aviation standards, and systems maintenance.

5. Establish and implement a Recruitment/Training Plan to provide backfill for 100 percent of field maintenance vacancies which occur during FY-88.

6. Maintain the thrust of the National Airspace System Plan as reflected in the FY-88 schedule.

HIGHLIGHTS

OBJECTIVE INDICATORS

a. In the Safety area, the objective for FY-88 was to improve the general aviation safety level by 5 percent. It was met for both the total accident rate and the fatal accident rate. The percent effectiveness was 104 for total accidents and 103 for fatal accidents.

b. The objective for FY-88 to increase Minority and Female representation by 1 percent was not met. Twenty-six percent of the 1-percent objective was attained for Minority and 61 percent for Female representation. Also, a percent effectiveness measure is being used to track where the agency's current Minority and Female representation level is in relationship to the Civilian Labor Force (CLF). Minority representation compared to the CLF is showing an 82 percent effectiveness and Female representation a 45 percent effectiveness.

c. The objective to decrease Operational Errors by 2 percent from the 1987 level during FY-88 was met in the En Route and Terminal facilities. En Route facilities decreased 18 percent below their 1987 level, and Terminal facilities decreased 10 percent.

d. The objective to decrease Air Traffic Delays (15 minutes or more) by a 15-percent reduction of the 497,000 FY-88 projected delays for FY-88 was met (131 percent effectiveness). Regional breakdown is not available at this time.

e. The objective to increase the Controller Work Force (CWF) by projected targets was met. The projected target was to increase the CWF level from 15,432 to 15,900. The CWF level at the end of FY-88 is 16,436 (215 percent increase attained).

PERFORMANCE INDICATORS

a. En Route Operational Errors per million Aircraft Handled through FY-88 is showing a 20 percent decrease at 18.73 compared to 23.33 for the same period in 1987, (125 percent effectiveness), and Terminal Operational Errors per million Airport Operations decreased 12 percent at 6.30 compared to 7.20 (114 percent effectiveness).

b. Air Traffic Delays per thousand Airport Operations through FY-88 is 5.34 a 17 percent decrease compared to 6.44 in FY-87.

c. The Air Traffic Developmental Attrition Rate in FY-88 is up 14 percent at 23.6 compared to 20.4 in FY-87 (87 percent effectiveness). The separation of developmentals at centers represents 88 percent of the total attrition rate.

d. Total agency overtime is down 9 percent in FY-88 compared with the same period last year.

e. Overtime of 2152's is down 22 percent at centers in FY-88 compared to FY-87 and up 2 percent at the 22 Pacer Airports.

f. F&E Projects Accomplishment Goals through FY-88 was met (102 percent effectiveness).

g. The Percentage Decrease of Grant Projects 4 years old or older target through FY-88 was not met (62 percent effectiveness).

IMPACT 88 PROGRAM

The following projects were completed during FY-88:

4C. Airspace Capacity - Expand National Airspace Performance Reporting System

7A. Air Transportation Security - Amend Part 129 Program for Foreign Air Carriers

8A. Obtain increased Delegation of Procurement Authority

8B. Obtain delegated authority for FAA Executive Personnel Selection

8C. Accelerate Production of ATC Personnel - Studies of Air Traffic Training

OBJECTIVE INDICATORS - Definitions

General Aviation Total and Fatal Accident Rate - All rates are in terms of accidents per 100,000 flight hours. Flight hours are estimates based on forecasts of aviation activity and historical distributions of aviation fuel sales. Data source ASF-200.

General Aviation Performance Index - The performance index is determined by dividing total flight hours by the sum of total fatality cost, injury costs, property damage costs for general aviation accidents. The index is then normalized by setting this calculated value to 100. Since the FY-87 national objective is to improve the overall safety level by 5 percent, the FY-88 national target for the index becomes 105. Data source ASF-200

Percent Minority and Female Employment - Includes full time permanent and part-time permanent employees only. The target represents the FY-88 agency objective to increase minority and female employment to 1 percent above the FY-87 levels. The long-term goal is to have the FAA work force reflect the representation of the civilian labor force.
Data source ACR-3.

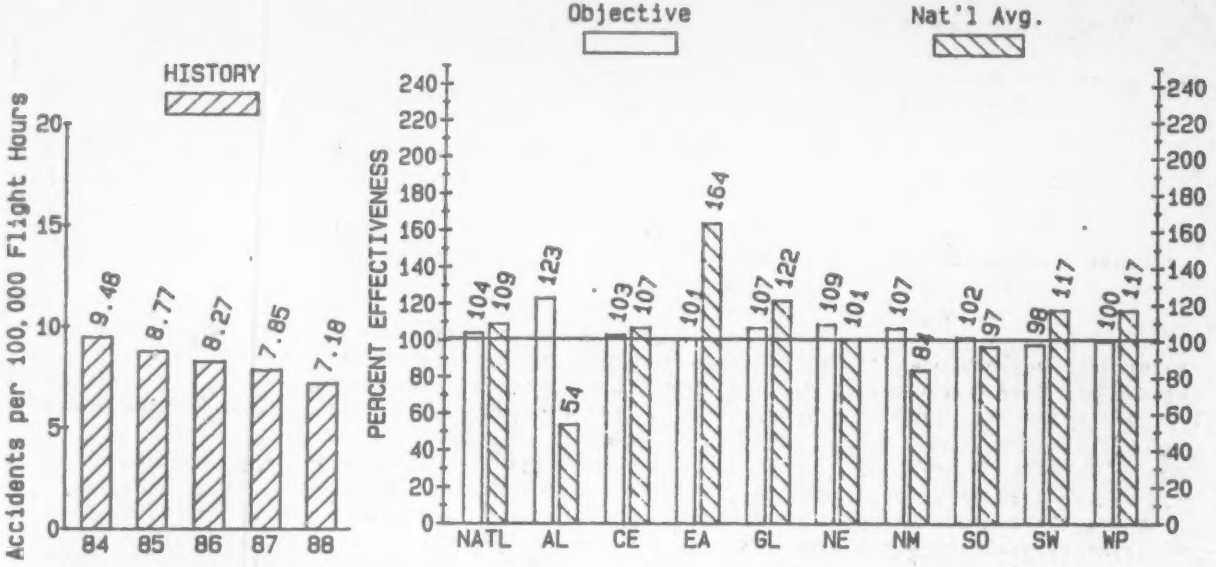
En route and Terminal Operational Errors - Includes total system errors. Objective represents a 2 percent decrease from the respective quarters in FY-87. Data source ASF-200.

Air Traffic Delays - Includes delays 15 minutes or more. Objective represents a 15 percent reduction for the 497,000 FY-88 projected delays. Data source ATO-130.

Controller Work Force (CWF) - Increase controller work force by projected FY-88 targets. Projected CWF FY-88 Objective reprecent full time permanent position allocation to regions-FY 1988 (based on conference action). Total Controller Work Force equal full time permanent appointments. All data includes Terminals and Centers only. Data source ATS-210/AHP-200.

GENERAL AVIATION TOTAL ACCIDENTS

Current Performance vs. Objective (5% below FY-87 rate) (bar 1)
Current Performance vs. FY-87 National Average (7.85) (bar 2)



	1983	1984	1985	1986	1987
TOTAL ACCIDENTS	3039	2976	2702	2522	2332
EST. HOURS (000)	31310	31395	30820	30510	29700
RATE	9.71	9.48	8.77	8.27	7.85

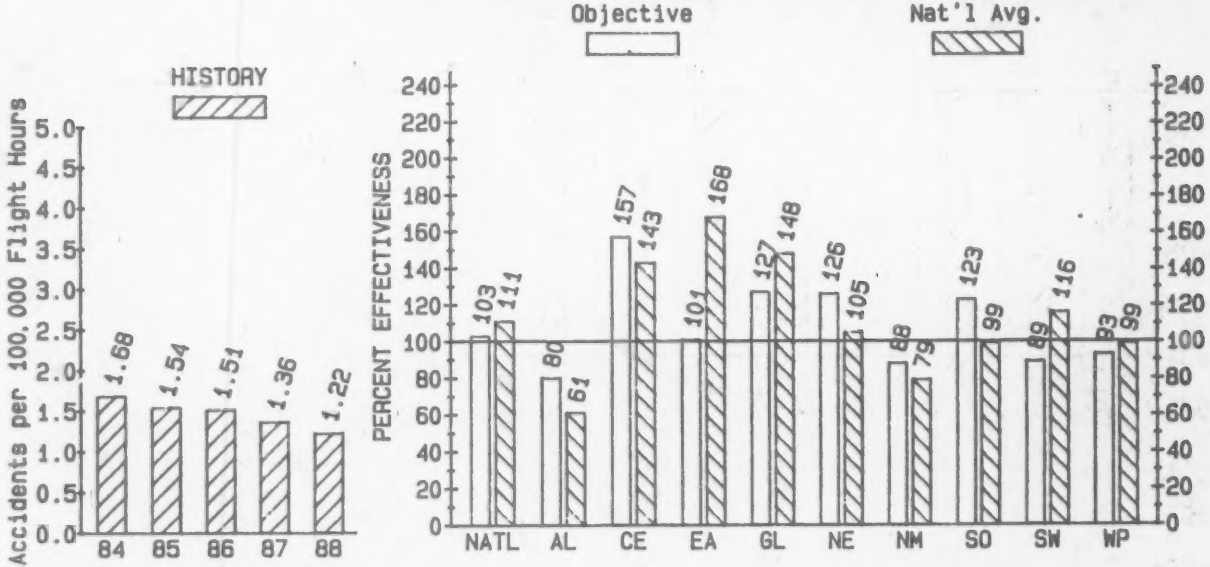
FY-88	NATL	AL	CE	EA	GL	NE	NM	SO	SW	WP
TOTAL ACCIDENTS	2118	125	115	177	322	90	245	383	299	342
EST. HOURS (000)	29501	856	1572	3704	5016	1157	2607	4733	4449	5407
RATE	7.18	14.61	7.32	4.78	6.42	7.78	9.40	8.09	6.72	6.70

FY-87	NATL	AL	CE	EA	GL	NE	NM	SO	SW	WP
TOTAL ACCIDENTS	2332	163	126	189	365	104	278	413	311	383
EST. HOURS (000)	29700	861	1583	3729	5050	1165	2625	4765	4479	5443
RATE	7.85	18.93	7.96	5.07	7.23	8.93	10.59	8.67	6.94	7.04
OBJECTIVE	7.46	17.98	7.56	4.81	6.87	8.48	10.06	8.23	6.60	6.68
% Effectiveness	104	123	103	101	107	109	107	102	98	100

Preliminary data as of 10/21/88.

GENERAL AVIATION FATAL ACCIDENTS

Current Performance vs. Objective (5% below FY-87 rate) (bar 1)
Current Performance vs. FY-87 National Average (1.36) (bar 2)

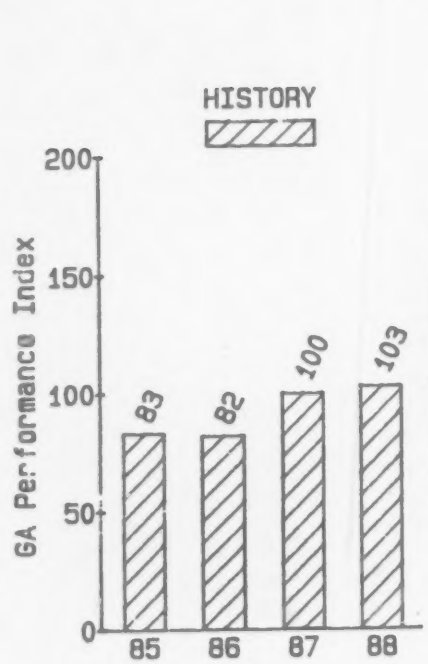


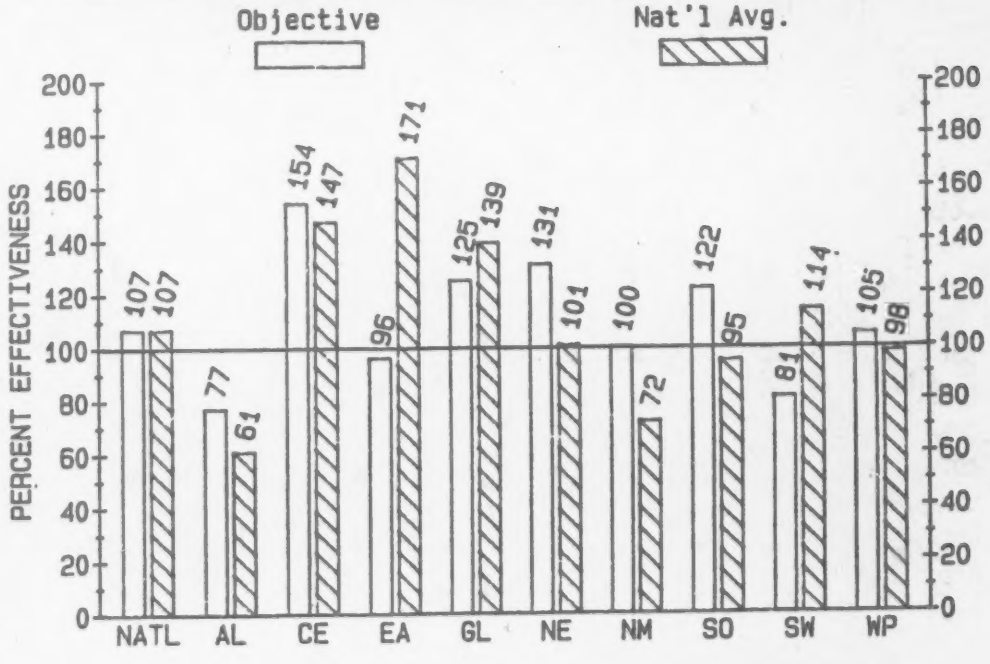
1984	1985	1986	1987	FY-88	NATL	AL	CE	EA	GL	NE	NM	SO	SW	WP
527	475	462	406	FATAL ACCIDENTS	361	19	15	30	46	15	45	65	32	74
31395	30820	30510	29700	EST. HOURS (000)	29501	856	1572	3704	5016	1157	2607	4733	4449	5407
1.68	1.54	1.51	1.36	RATE	1.22	2.22	0.95	0.81	0.92	1.30	1.73	1.37	1.17	1.37
				FY87										
				FATAL ACCIDENTS	404	16	25	32	62	20	42	85	69	73
				EST. HOURS (000)	29700	861	1583	3729	5050	1165	2625	4765	4479	5443
				RATE	1.36	1.86	1.58	0.86	1.23	1.72	1.60	1.78	1.09	1.34
				OBJECTIVE	1.26	1.77	1.50	0.82	1.17	1.63	1.52	1.69	1.04	1.27
				% Effectiveness	103	80	157	101	127	126	88	123	99	93

Preliminary data as of 10/21/88.

GENERAL AVIATION PERFORMANCE INDEX

Current Performance vs. Objective (5% Increase in Index) (bar 1)
Current Performance vs. FY-87 National Index (105.0) (bar 2)



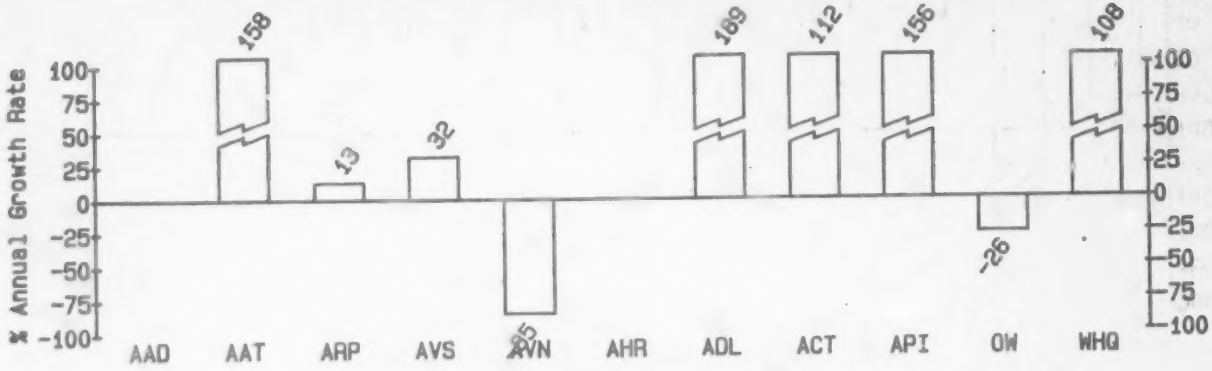


	NATL	AL	CE	EA	GL	NE	NM	SO	SW	WP
FY-88 PERFORMANCE INDEX	112.81	64.51	156.76	179.26	145.87	105.88	75.15	100.07	119.21	102.50
FY-88 OBJECTIVE	105.00	83.76	100.72	187.38	116.74	80.57	74.88	82.36	146.33	97.69
% Effectiveness	107	77	154	96	125	131	100	122	81	105

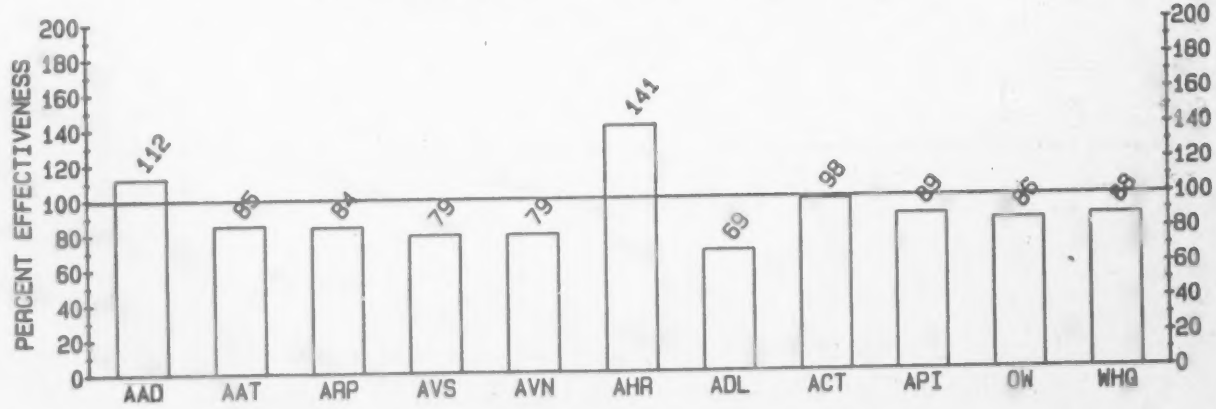
Preliminary data as of 10/21/88.

MINORITY REPRESENTATION - PERMANENT EMPLOYEES

% Annual Growth Rate Attained (Agency Obj. 1% above FY-87)

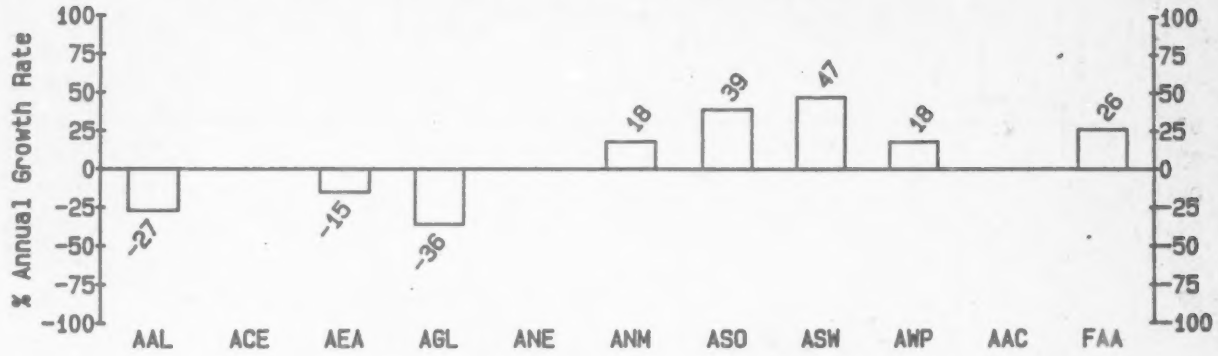


Current Performance vs. Civilian Labor Force

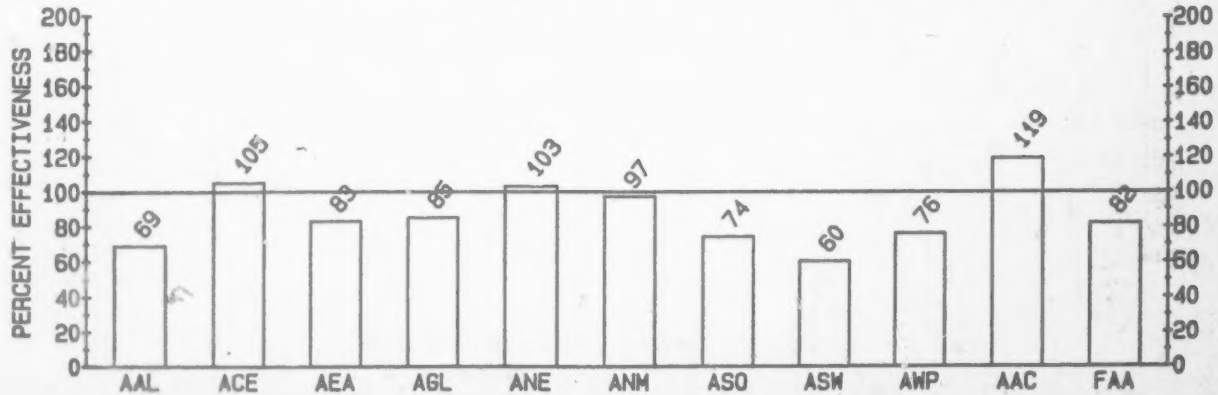


MINORITY REPRESENTATION - PERMANENT EMPLOYEES

% Annual Growth Rate Attained (Agency Obj. 1% above FY-87)



Current Performance vs. Civilian Labor Force



PERCENT MINORITY EMPLOYMENT vs. OBJECTIVE

	AAD	AAT	ARP	AVS WHQ	AVN	AHR	ADL WHQ	ACT	API	OW	WHQ	AL	CE	EA	GL	NE	MN	SO	SW	WP	AAC	NA	NATL
FY-88																							
Minority Employment	143	126	19	126	119	68	145	168	46	64	737	149	289	765	615	132	344	1110	793	1134	423	5331	6778
Permanent Employment	451	524	80	560	866	170	736	931	182	262	2965	1360	2730	5447	6690	1919	4305	7985	5607	5456	2045	41499	48306
Percent	31.71	24.05	23.75	22.50	13.74	40.00	19.70	18.05	25.27	24.43	24.86	10.96	10.59	14.04	9.19	6.88	7.99	13.90	14.14	20.78	20.68	12.85	14.03
FY-87																							
Minority Employment	126	104	20	113	124	58	119	158	42	60	642	148	265	760	616	128	336	1076	752	1094	405	5175	6504
Permanent Employment	430	482	85	514	847	162	687	947	185	241	2786	1324	2605	5353	6525	1853	4259	7962	5497	5334	1925	40712	47217
Percent	29.30	21.58	23.53	21.98	14.64	35.80	17.32	16.68	22.70	24.90	23.04	11.18	10.17	14.20	9.44	6.91	7.89	13.51	13.68	20.51	21.04	12.71	13.77
FY-88 Objective																							
1st QTR	29.30	21.97	23.96	22.38	14.91	35.80	17.64	16.99	23.11	25.35	23.46	11.38	10.17	14.46	9.61	6.91	8.03	13.76	13.93	20.88	21.04	12.94	14.02
2nd QTR	29.30	22.36	24.38	22.78	15.17	35.80	17.95	17.29	23.53	25.80	23.88	11.58	10.17	14.71	9.78	6.91	8.18	14.00	14.18	21.25	21.04	13.17	14.27
3rd QTR	29.30	22.75	24.81	23.18	15.44	35.80	18.27	17.59	23.94	26.25	24.30	11.79	10.17	14.97	9.95	6.91	8.32	14.25	14.43	21.63	21.04	13.40	14.52
4th QTR	29.30	23.14	25.24	23.58	15.70	35.80	18.58	17.90	24.35	26.70	24.72	11.99	10.17	15.23	10.13	6.91	8.46	14.50	14.67	22.00	21.04	13.63	14.77
Annual Obj. Growth Rate (FY-88 Obj. - FY-87 %)	.00	1.57	1.71	1.60	1.06	.00	1.26	1.21	1.65	1.81	1.67	0.81	.00	1.03	0.69	.00	0.57	0.98	0.99	1.49	.00	0.92	1.00
Civilian Labor Force(CLF)	28.40	28.40	28.40	28.40	17.40	28.40	28.40	18.50	28.40	28.40	28.40	15.80	10.10	17.00	10.80	6.70	8.20	18.80	23.40	27.50	17.40		17.10
% Ann. Gr. Rate Attained	**	158	13	32	-85	**	189	112	156	-26	108	-27	**	-15	-36	**	18	39	47	18	**		26
Percent Effectiveness: Current / CLF =	112	85	84	79	79	141	69	98	89	86	88	69	105	83	85	103	97	74	60	76	119		82

** At or above Civilian Labor Force.

Employment numbers include full time permanent and part time permanent employees only.

Objective = (FY-87 Natl Percent + 1.0) / FY-87 Natl Percent) * Organizations FY-87 Percent.

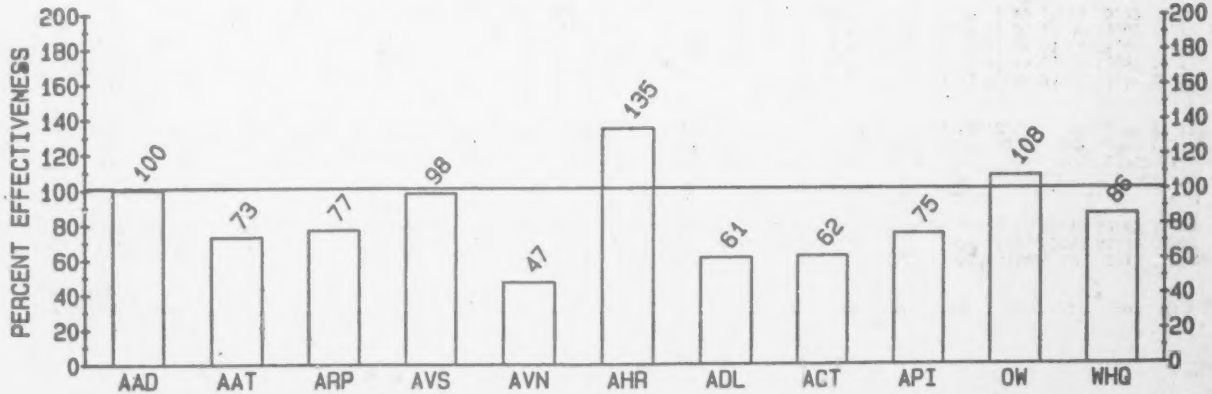
% Annual Growth Rate Attained = ((Current - FY-87 Organization Percent) / Annual Objective Growth Rate) * 100

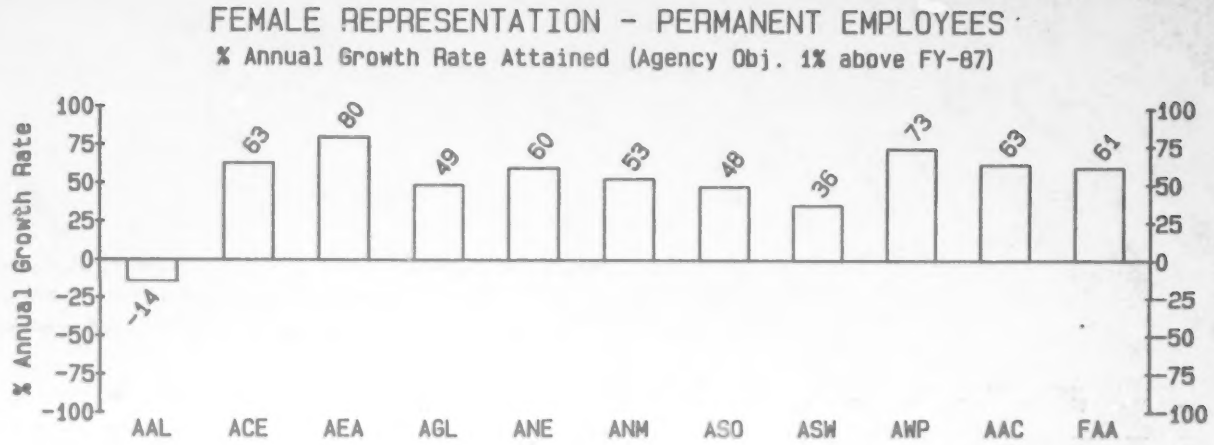
WHQ - Associate Administrators
HA - Regions only
NATL - National total

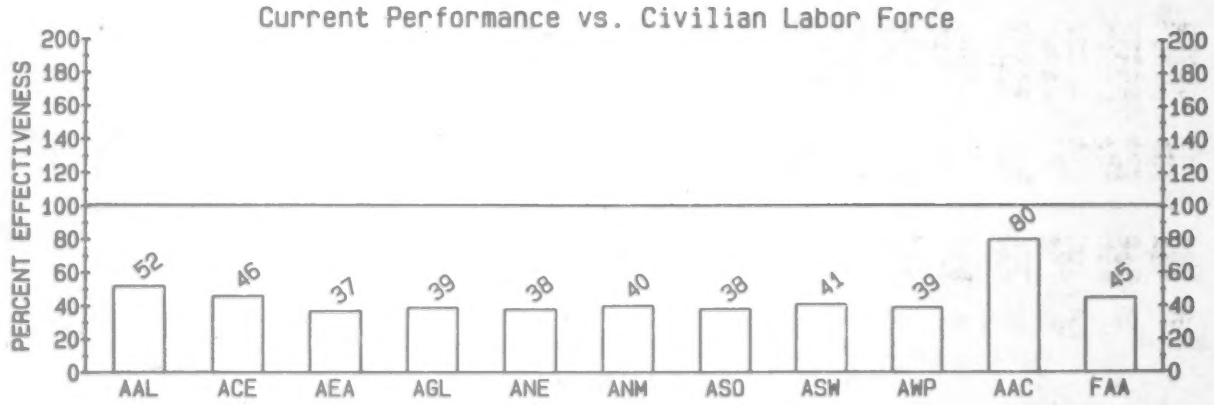
FEMALE REPRESENTATION - PERMANENT EMPLOYEES

% Annual Growth Rate Attained (Agency Obj. 1% above FY-87)

Current Performance vs. Civilian Labor Force




FEMALE REPRESENTATION - PERMANENT EMPLOYEES
% Annual Growth Rate Attained (Agency Obj. 1% above FY-87)
% Annual Growth Rate
100
75
50
25
0
-25
-50
-75
-100
-14
63
80
49
60
53
48
36
73
63
61
AAL
ACE
AEA
AGL
ANE
ANM
ASO
ASW
AWP
AAC
FAA


Current Performance vs. Civilian Labor Force
PERCENT EFFECTIVENESS
200
180
160
140
120
100
80
60
40
20
0
52
46
37
39
38
40
38
41
39
80
45
AAL
ACE
AEA
AGL
ANE
ANM
ASO
ASW
AWP
AAC
FAA

PERCENT FEMALE EMPLOYMENT vs. OBJECTIVE

	AAD	AAT	ARP	AVS WHQ	AVN	AHR	ADL WHQ	ACT	API	OM	WHQ	AL	CE	EA	GL	NE	NW	SO	SW	WP	AAC	NA	NATL
FY-88																							
Female Employment	212	179	29	257	183	108	209	269	64	133	1191	312	552	881	1098	315	725	1360	985	942	744	7170	9557
Permanent Employment	451	524	80	560	866	170	736	931	182	262	2965	1360	2730	5447	6690	1919	4305	7985	5607	5456	2045	41499	48306
Percent	47.01	34.16	36.25	45.89	21.13	63.53	28.40	28.89	35.16	50.76	40.17	22.94	20.22	16.17	16.41	16.41	16.84	17.03	17.57	17.27	36.38	17.28	19.78
FY-87																							
Female Employment	195	162	30	230	167	104	187	283	66	109	1083	306	510	831	1044	295	698	1323	948	887	678	6842	9053
Permanent Employment	430	482	85	514	847	162	687	947	185	241	2786	1324	2605	5353	6525	1853	4259	7962	5497	5334	1925	40712	47217
Percent	45.35	33.61	35.29	44.75	19.72	64.20	27.22	29.88	35.68	45.23	38.87	23.11	19.58	15.52	16.00	15.92	16.39	16.62	17.25	16.63	35.22	16.81	19.17
FY-88 Objective																							
1ST QTR	45.94	34.05	35.75	45.33	19.97	64.20	27.57	30.27	36.14	45.82	39.38	23.41	19.83	15.73	16.21	16.13	16.60	16.83	17.47	16.85	35.68	17.03	19.42
2ND QTR	46.53	34.49	36.21	45.91	20.23	64.20	27.93	30.66	36.61	46.41	39.89	23.71	20.09	15.93	16.42	16.34	16.82	17.05	17.70	17.06	36.14	17.24	19.67
3RD QTR	47.12	34.92	36.67	46.50	20.49	64.20	28.28	31.05	37.07	47.00	40.39	24.02	20.34	16.13	16.63	16.54	17.03	17.27	17.92	17.28	36.60	17.46	19.92
4TH QTR	47.71	35.36	37.14	47.08	20.75	64.20	28.64	31.44	37.54	47.59	40.90	24.32	20.60	16.33	16.83	16.75	17.24	17.48	18.15	17.50	37.06	17.68	20.17
Annual Obj. Growth Rate (FY-88 Obj. - FY-87 %)	2.37	1.75	1.84	2.33	1.03	.00	1.42	1.56	1.86	2.36	2.03	1.21	1.02	0.81	0.83	0.83	0.85	0.87	0.90	0.87	1.84	0.88	1.00
Civilian Labor Force(CLF)	46.90	46.90	46.90	46.90	45.30	46.90	46.90	46.50	46.90	46.90	46.90	44.30	44.30	43.90	42.20	43.60	41.90	44.60	43.30	44.20	45.30		43.70
% Ann. Gr. Rate Attained	70	31	52	49	138	**	83	-64	-27	235	64	-14	63	80	49	60	53	48	36	73	63		61
Percent Effectiveness: Current / CLF =	100	73	77	98	47	135	61	62	75	108	86	52	46	37	39	38	40	38	41	39	80		45

** At or above Civilian Labor Force.

Employment numbers include full time permanent and part time permanent employees only.

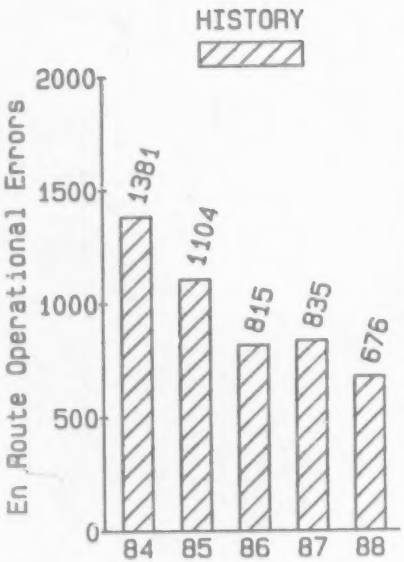
Objective = (FY-87 Natl Percent + 1.0) / FY-87 Natl Percent) * Organizations FY-87 Percent.

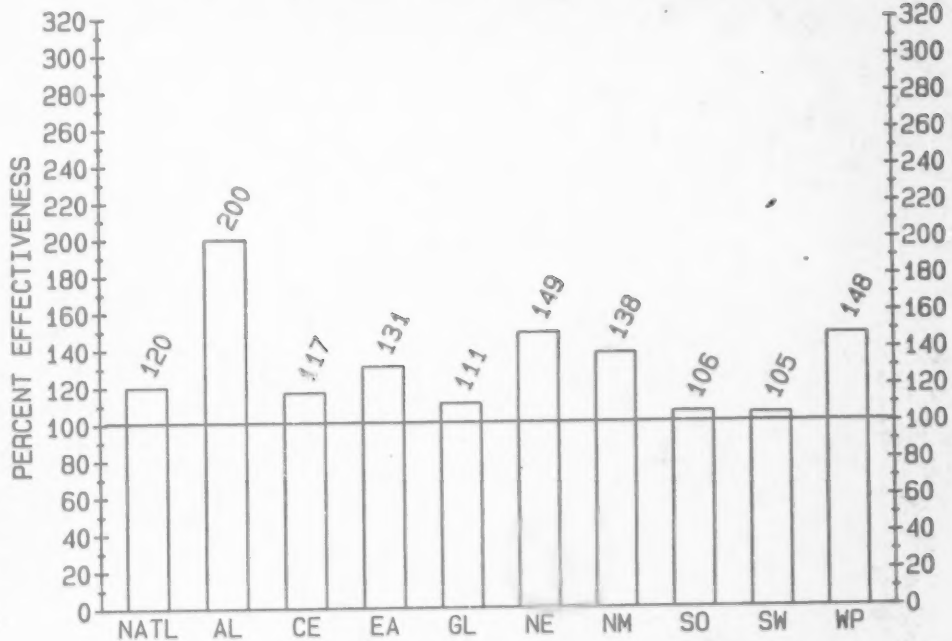
% Annual Growth Rate Attained = ((Current - FY87 Organization Percent) / Annual Objective Growth Rate) * 100

WHQ - Associate Administrators
NA - Regions only
NATL - National total

EN ROUTE OPERATIONAL ERRORS

Current Performance vs. Objective (2% below FY-87)



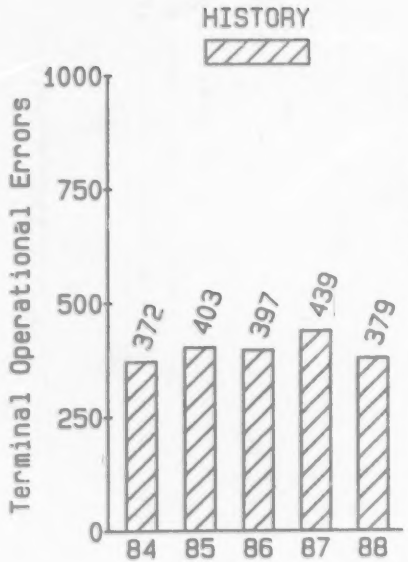


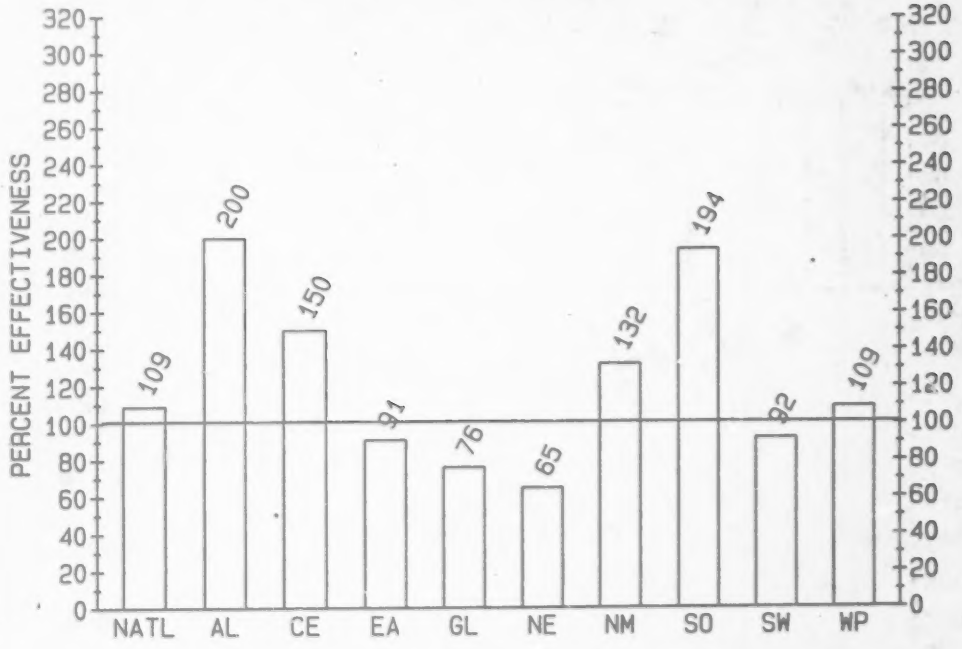
	NATL	AL	CE	EA	GL	NE	NM	SO	SW	WP
FY-88	676	3	30	108	190	37	32	154	64	58
FY-87	824	6	36	144	214	56	45	167	68	88
OBJECTIVE	808	6	35	141	210	55	44	164	67	86
% Effectiveness	120	200	117	131	111	149	138	106	105	148

FY 1988 Preliminary data.

TERMINAL OPERATIONAL ERRORS

Current Performance vs. Objective (2% below FY-87)



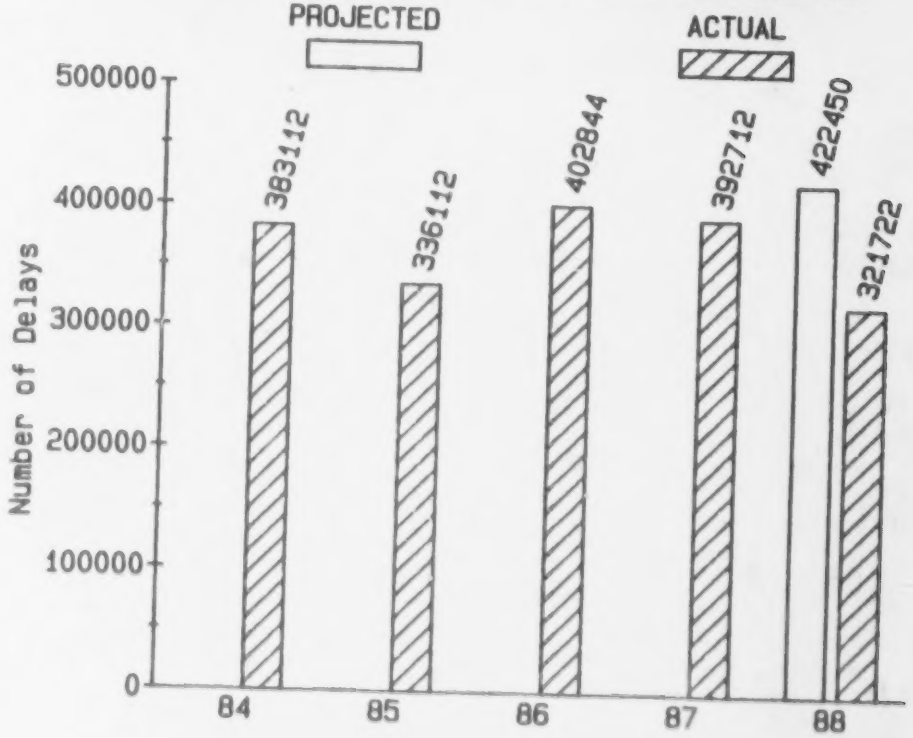


	NATL	AL	CE	EA	GL	NE	NM	SO	SW	WP
FY-88	379	0	10	76	76	26	28	48	48	67
FY-87	420	7	15	70	59	17	38	95	45	74
OBJECTIVE	413	7	15	69	58	17	37	93	44	73
% Effectiveness	109	200	150	91	76	65	132	194	92	109

FY 1988 Preliminary data.

AIR TRAFFIC DELAYS (15 MINUTES OR MORE)

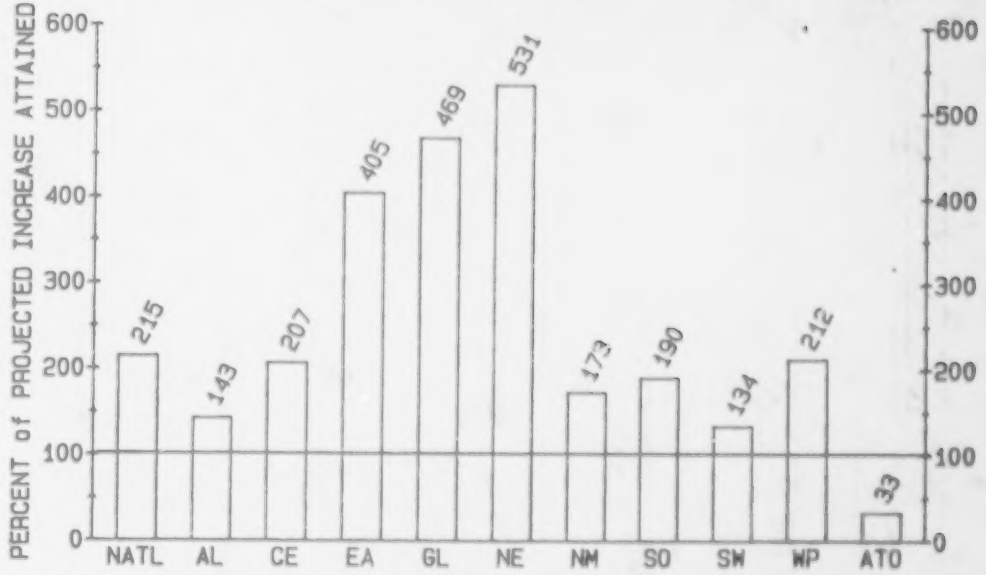
FY-88 PROJECTED DELAYS vs. FY-88 ACTUAL DELAYS



REGIONAL BREAKDOWN NOT AVAILABLE AT THIS TIME. (ATO-130)

CONTROLLER WORK FORCE (CWF)

Increase CWF by Projected FY-88 Targets



	NATL	AL	CE	EA	GL	NE	NM	SO	SW	WP	ATO
Projected CWF FY-88 Objective	15900	276	799	2163	2929	739	1486	3180	2197	2112	39
Base (1st qtr FY-88)	15432	255	757	2124	2881	726	1434	3107	2060	2061	27
Projected FY-88 CWF Increase	468	21	42	19	48	13	52	73	137	51	12
FY-88 Total Controller Workforce	16436	285	844	2201	3106	795	1526	3246	2244	2169	31
Base (1st qtr FY-88)	15432	255	757	2124	2881	726	1434	3107	2060	2061	27
CWF Increase	1004	30	87	77	225	69	90	139	184	108	4
% of Proj. Increase Attained	215	143	207	405	469	531	173	190	134	212	33

Includes Terminals and Centers.

PERFORMANCE INDICATORS - Definitions

Percent Minority and Female Employment by Air Traffic Controllers, Aviation Safety, and Electronic Technicians - Includes full time permanent and part-time permanent employees only. The target represents the agency long term goal to have the FAA work force reflect the representation of the civilian labor force. Data Source ACR-3/1980 Census.

En Route Operational Errors per million Aircraft Handled - Rates are in terms of total system errors per million aircraft handled. Aircraft handled data is from the National Air Traffic Activity System. Comparison is reporting period measured against prior year. Data source ASF-200/AMS-400.

Terminal Operational Errors per million Airport Operations - Rates are in terms of total system errors per million airport operations. Airport operations data is from the National Air Traffic Activity System. Comparison is reporting period measured against prior year. Data source ASF-200/AMS-400.

Air Traffic Delays per thousand Airport Operations - Rates are in terms of air traffic delays (15 minutes or more) per thousand airport operations. Airport operations data is from the National Air Traffic Activity System. Comparison is reporting period measured against prior year. Data source ATO-130/AMS-400.

Air Traffic Developmental Attrition Rate - The attrition rate equals the number of developmentals that separated for any reason divided by the number of developmentals at the end of the quarter. Attrition rate equals cumulative number of developmentals that separated divided by average number of total developmentals. Comparison is reporting period measured against prior year rate for the same period. Data source CPMIS/AMS-420.

Average Hours of Overtime per GS-2152 ATC Field Employees per pay period -- Centers and 22 Pacing Airports - Average overtime equal overtime hours (000) divided by employees pay periods through the periods being reported. Comparison is reporting period measured against prior year. Data source UPS/AMS-420.

Average Number of Outages Index Score - (TARS, CRADS, VOR, LOC, and GS) - The index is a comparison of facility performance made within peer groups of like equipment not across the entire facility population. Target is the 70.0 performance level established by the office of primary interest. Data source ADL-22.

F & E Project Accomplishment Goals - Projects include commissionings, relocations, and replacement. Comparison is actual accomplishments for reporting period measured against planned goals for same period. Data source APM-12.

Airport Inspections per Airport Employee - The count of inspections include individual inspection of initial certification, annual certification, certification follow-up and/or surveillance, general aviation safety, obligation compliance, and construction. Airport employees include all on-board employees as of the end of the quarter. Target represent the goal established by the region. Data source ARP-12.

Percentage Decrease of Grant Projects 4 years old or older - Airport Improvement Program (AIP) started in FY82, and any open Grants from AIP are now 4 years old or older. The targets are to reduce the number of open projects in each region by 50% by the end of FY-88. Data source ARP-12.

Attendees at Accident Prevention Programs per Active Pilots - The number of attendees include participants at FAA conducted events and Counselor/Industry conducted events. The attendees at the seminars are assumed to be active pilots, however, there are no records which show whether other than active pilots attend or not. Comparison is percent of attendees for reporting period measured against prior year percentage for same period. Data source AFO-806/AMS-420.

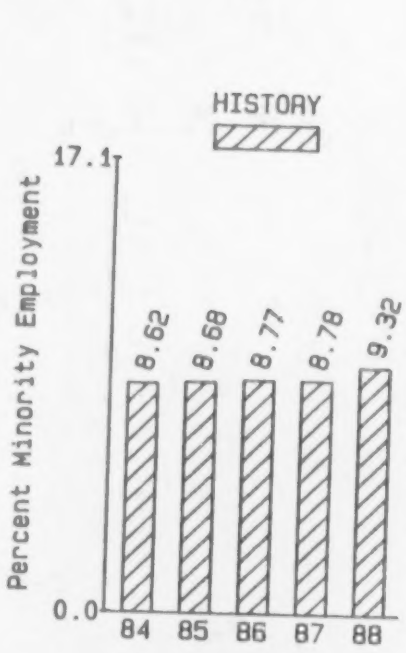
Employee per Supervisor - Employees include full time permanent, full time other, part-time permanent, intermittent, and part-time other. Comparison is ratio for reporting period measured against prior year ratio. Data source CPMIS/AMS-420.

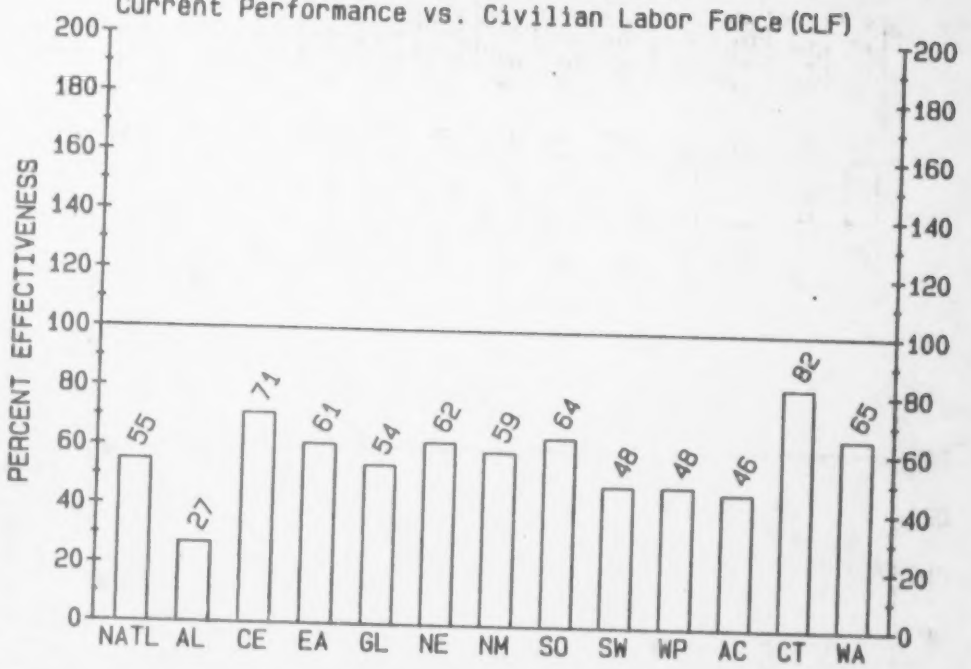
Average Hours of Overtime per Person per Pay Period - Average overtime equal overtime hours (000) divided by employees pay period through the periods being reported. Comparison is average hours of overtime for the reporting period measured against the prior year average for the same period. Data source UPS/AMS-420.

MINORITY REPRESENTATION

AIR TRAFFIC CONTROL (2152)

Current Performance vs. Civilian Labor Force (CLF)





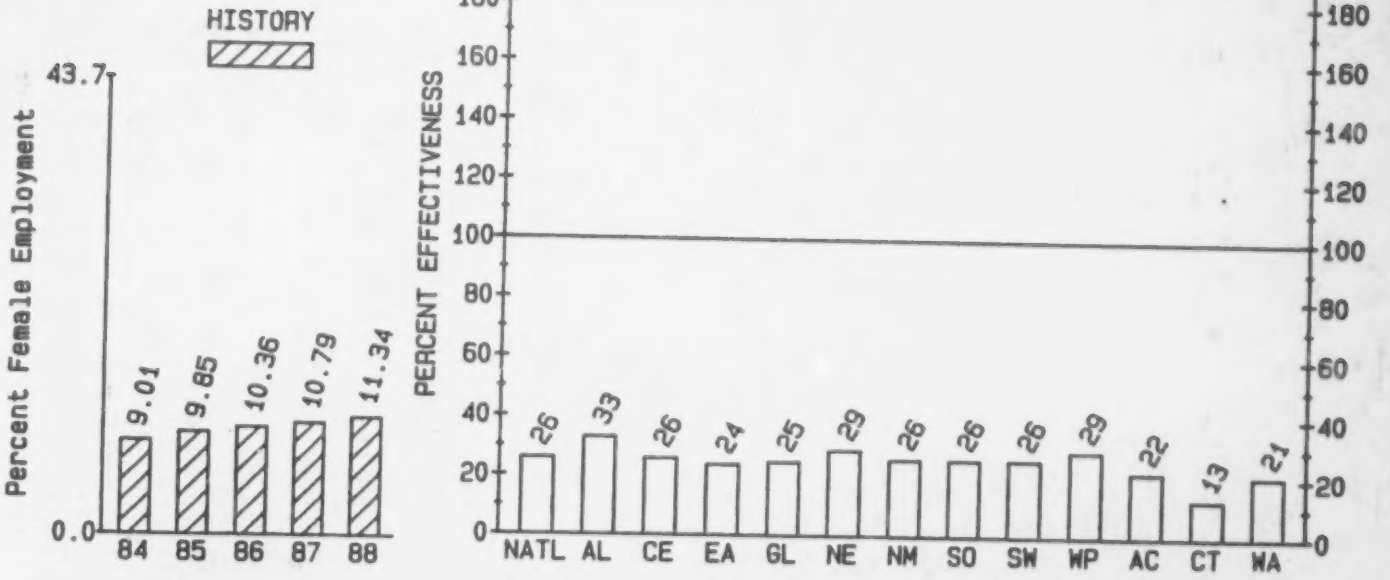
	1984	1985	1986	1987
Minority Employment	1835	1897	1915	1982
Permanent Employment	21282	21847	21838	22569
Percent	8.62	8.68	8.77	8.78

FY-88	NATL	AL	CE	EA	GL	NE	NM	SO	SW	WP	AC	CT	WA
Minority Employment	2170	24	93	319	240	45	103	546	354	388	13	5	40
Permanent Employment	23271	557	1292	3063	4128	1082	2113	4560	3135	2929	162	33	217
Percent	9.32	4.31	7.20	10.41	5.81	4.16	4.87	11.97	11.29	13.25	8.02	15.15	18.43
Civilian Labor Force	17.1	15.8	10.1	17.0	10.8	6.7	8.2	18.8	23.4	27.5	17.4	18.5	28.4
% Effectiveness	55	27	71	61	54	62	59	64	48	48	46	82	65

FEMALE REPRESENTATION

AIR TRAFFIC CONTROL (2152)

Current Performance vs. Civilian Labor Force (CLF)



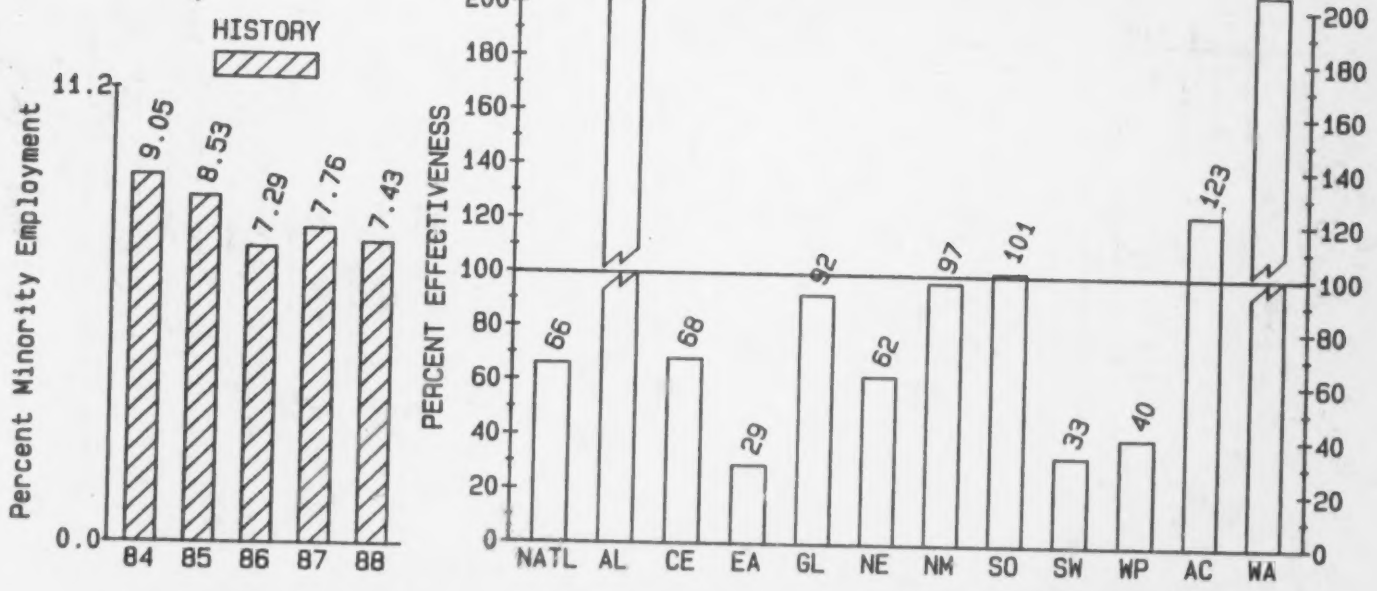
	1984	1985	1986	1987
Female Employment	1917	2153	2263	2435
Permanent Employment	21282	21867	21838	22569
Percent	9.01	9.85	10.36	10.79

FY-88	NATL	AL	CE	EA	GL	NE	NM	SO	SW	WP	AC	CT	WA
Female Employment	2640	81	146	322	432	138	227	538	347	370	16	2	21
Permanent Employment	23271	557	1292	3063	4128	1082	2113	4560	3135	2929	162	33	217
Percent	11.34	14.54	11.30	10.51	10.47	12.75	10.74	11.80	11.07	12.63	9.88	6.06	9.68
Civilian Labor Force	43.7	44.3	44.3	43.9	42.2	43.6	41.9	44.6	43.3	44.2	45.3	46.5	46.9
% Effectiveness	26	33	26	24	25	29	26	26	26	29	22	13	21

MINORITY REPRESENTATION

AVIATION SAFETY (1825)

Current Performance vs. Civilian Labor Force (CLF)

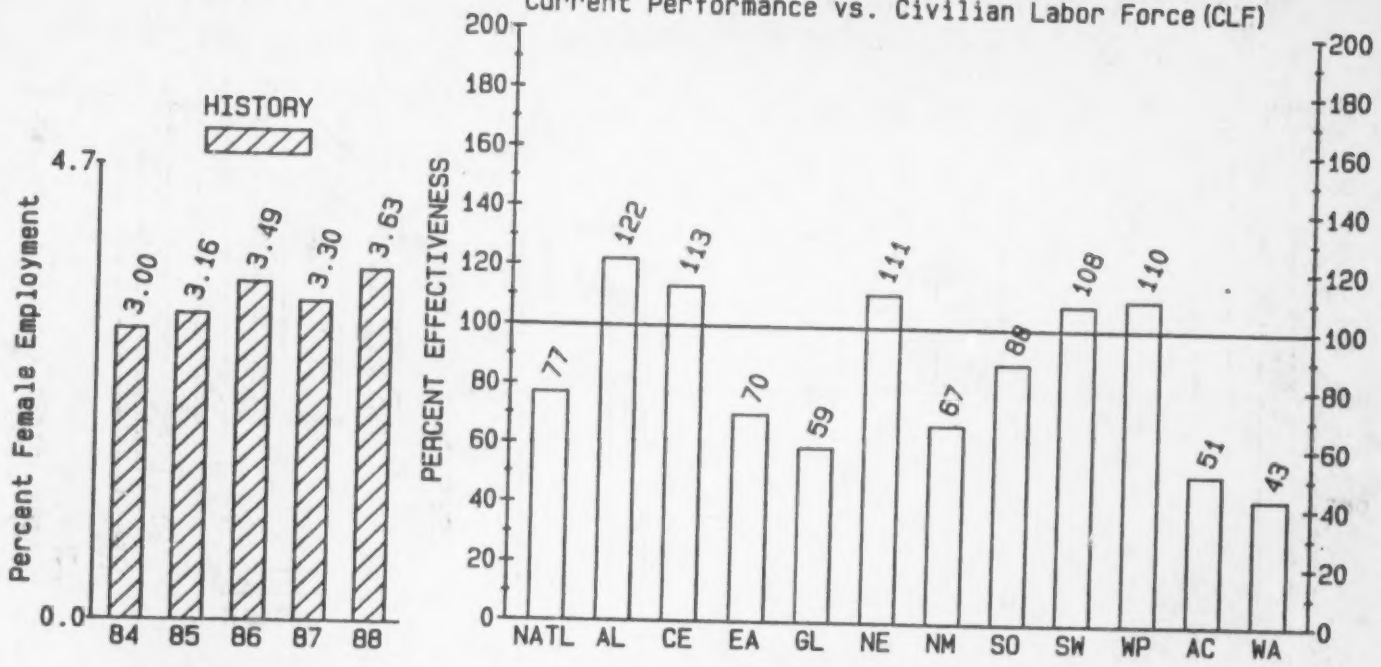


1984	1985	1986	1987	FY-88	NATL	AL	CE	EA	GL	NE	NM	SO	SW	WP	AC	WA
175	162	161	179	Minority Employment	186	7	7	10	17	6	24	39	15	29	15	17
1934	1899	2208	2306	Permanent Employment	2505	70	190	259	294	110	291	367	310	372	115	127
9.05	8.53	7.29	7.76	Percent	7.43	10.00	3.68	3.86	5.78	5.45	8.25	10.63	4.84	7.80	13.04	13.39
				Civilian Labor Force	11.2	3.7	5.4	13.5	6.3	8.8	8.5	10.5	14.7	19.6	10.6	3.7
				% Effectiveness	66	270	68	29	92	62	97	101	33	40	123	362

FEMALE REPRESENTATION

AVIATION SAFETY (1825)

Current Performance vs. Civilian Labor Force (CLF)



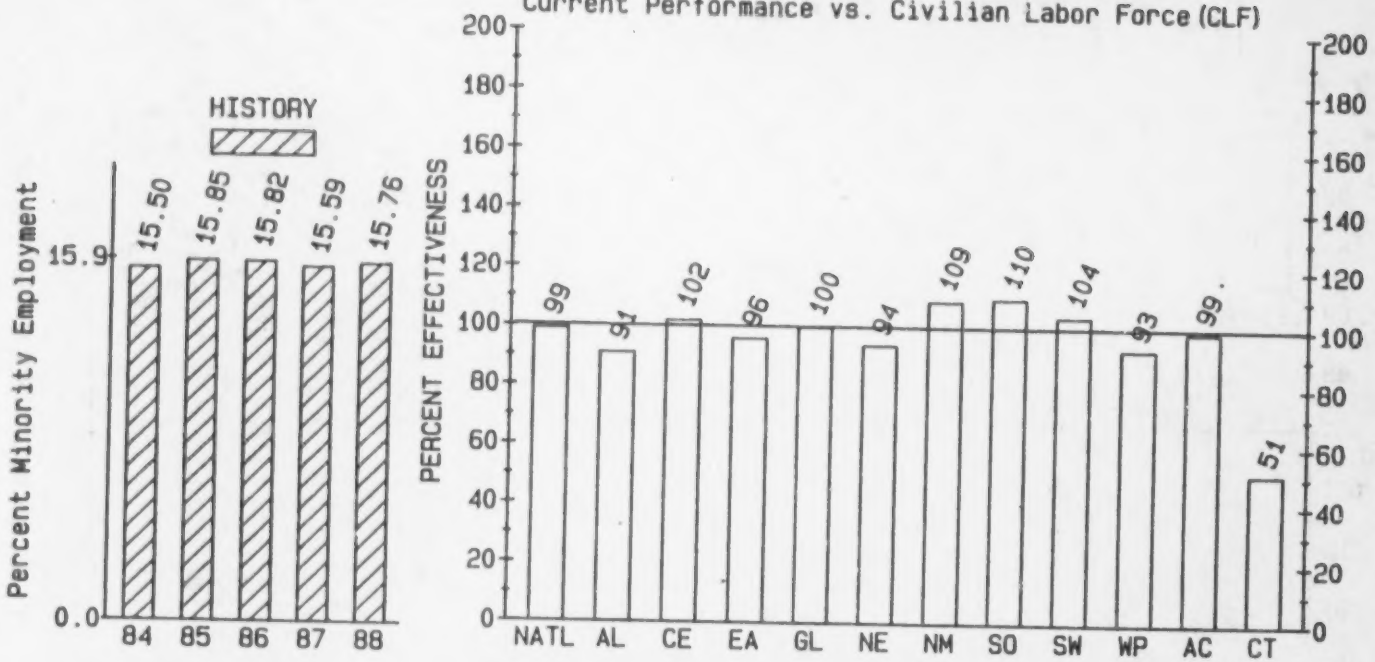
	1984	1985	1986	1987
Female Employment	58	60	77	76
Permanent Employment	1934	1899	2208	2306
Percent	3.00	3.16	3.49	3.30

FY-88	NATL	AL	CE	EA	GL	NE	NM	SO	SW	WP	AC	WA
Female Employment	91	4	9	4	13	5	7	9	8	22	4	6
Permanent Employment	2505	70	190	259	294	110	291	367	310	372	115	127
Percent	3.63	5.71	4.74	1.54	4.42	4.55	2.41	2.45	2.58	5.91	3.48	4.72
Civilian Labor Force	4.7	4.7	4.2	2.2	7.5	4.1	3.6	2.8	2.4	5.4	13.8	11.1
% Effectiveness	77	122	113	70	59	111	67	88	108	110	25	43

MINORITY REPRESENTATION

ELECTRONIC TECHNICIANS (0856)

Current Performance vs. Civilian Labor Force (CLF)

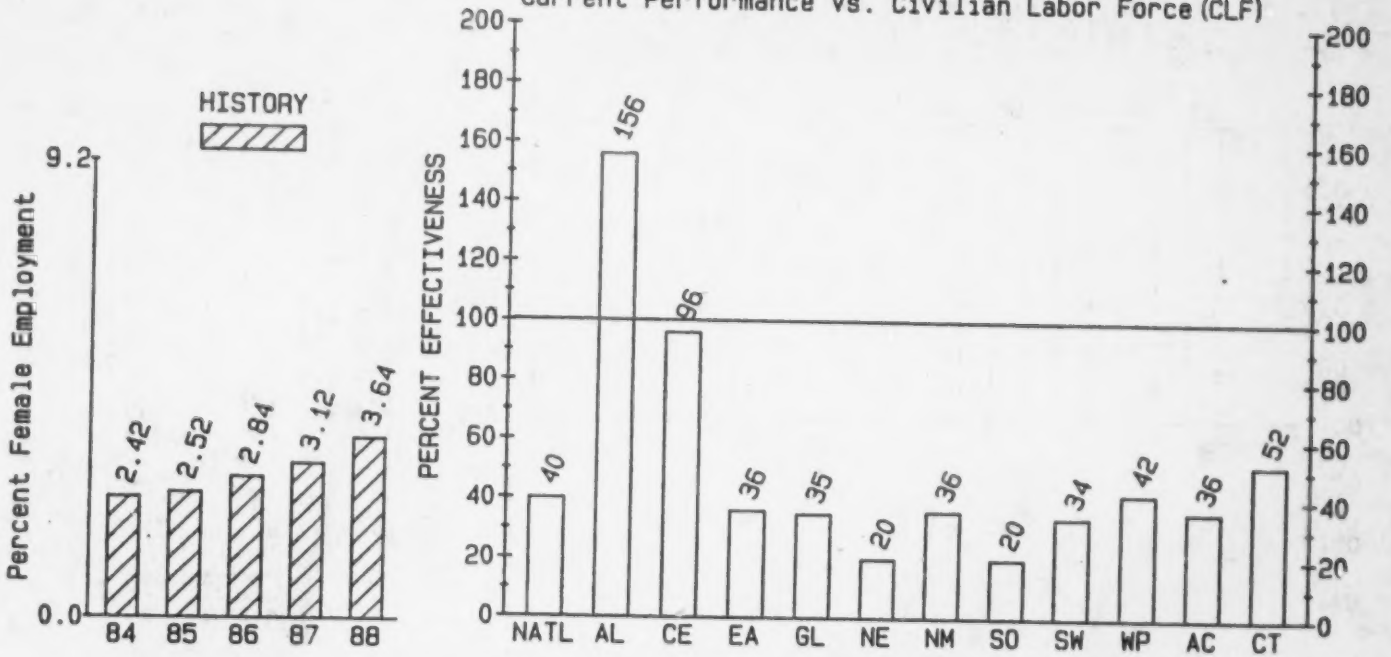


1984	1985	1986	1987	FY-88	NATL	AL	CE	EA	GL	NE	NM	SO	SW	WP	AC	CT
1132	1096	1049	1063	Minority Employment	1061	30	50	150	103	21	70	165	141	253	75	3
7504	6913	6630	6817	Permanent Employment	6733	231	403	895	906	299	685	1265	734	819	447	49
15.50	15.85	15.82	15.59	Percent	15.76	12.99	12.41	16.76	11.37	7.02	10.22	13.04	19.21	30.89	16.78	6.12
				Civilian Labor Force	15.9	14.3	12.2	17.5	11.4	7.5	9.4	11.9	18.5	33.1	16.9	12.0
				% Effectiveness	99	91	102	96	100	94	109	110	104	93	99	51

FEMALE REPRESENTATION

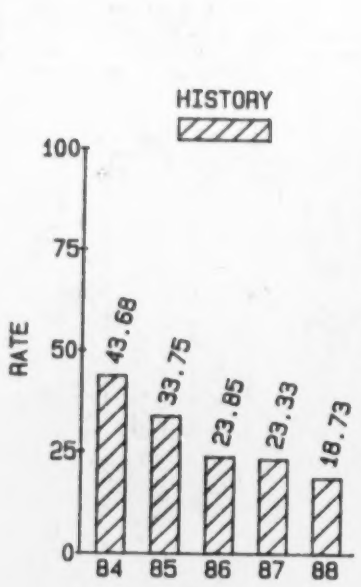
ELECTRONIC TECHNICIANS (0856)

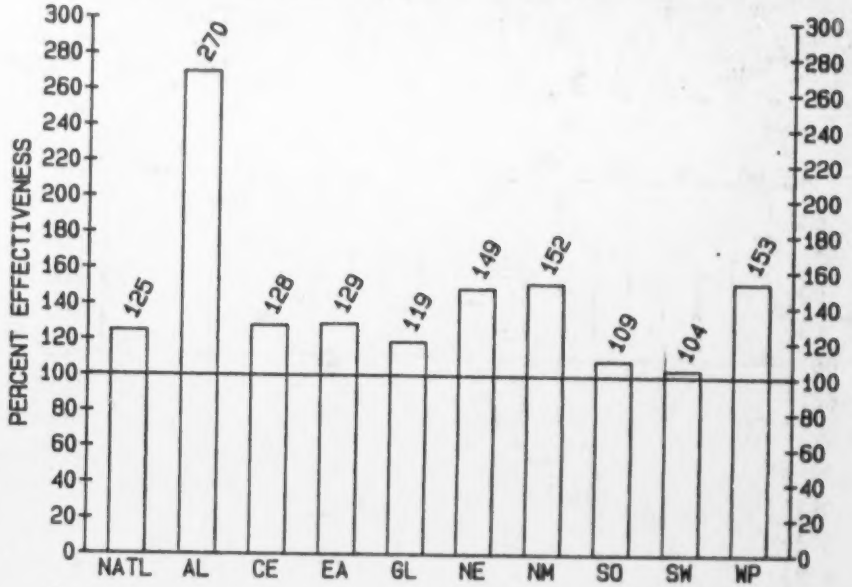
Current Performance vs. Civilian Labor Force (CLF)



1984	1985	1986	1987	FY-88	NATL	AL	CE	EA	GL	NE	NM	SO	SW	WP	AC	CT
177	174	188	213	Female Employment	245	23	35	23	27	5	24	21	25	39	22	1
7304	6913	6630	6817	Permanent Employment	6733	231	403	895	906	299	685	1265	734	819	447	49
2.42	2.52	2.84	3.12	Percent	3.64	9.96	8.68	2.57	2.98	1.67	3.50	1.66	3.41	4.76	4.92	2.04
				Civilian Labor Force	9.2	6.4	9.0	7.1	8.5	8.2	9.8	8.4	10.0	11.3	13.8	3.9
				% Effectiveness	40	156	96	36	35	20	36	20	34	42	36	52

EN ROUTE OPERATIONAL ERRORS per million AIRCRAFT HANDLED
Current Performance vs. Target (Below FY-87 rate)

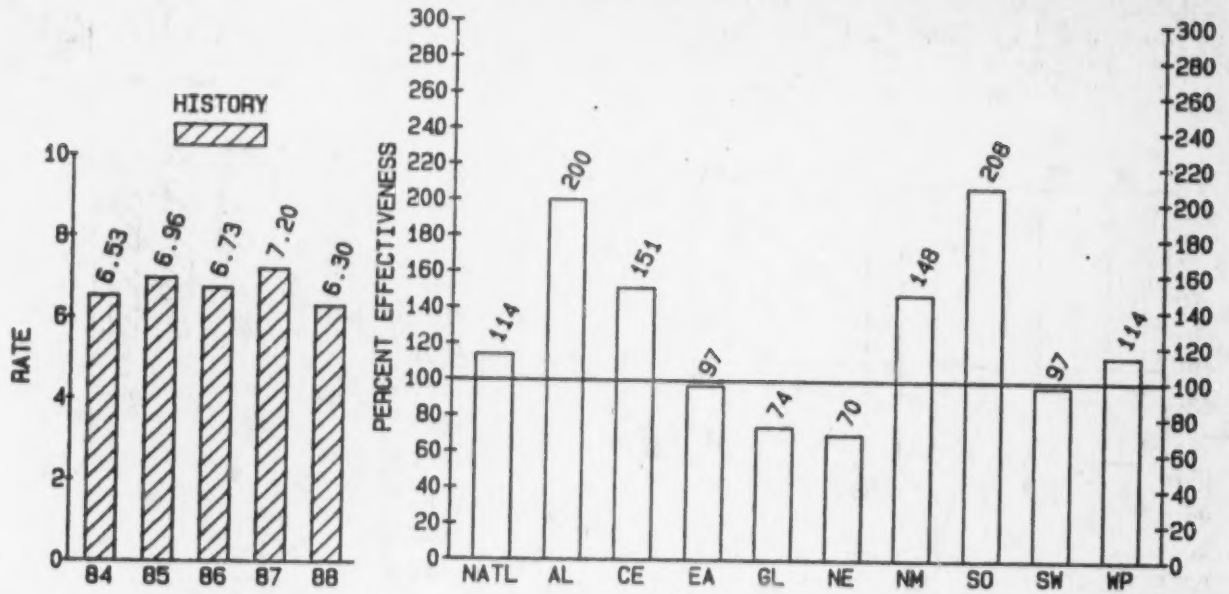




1984	1985	1986	1987
1381	1104	815	835
31.615	32.708	34.177	35.794
43.68	33.75	23.85	23.33

	NATL	AL	CE	EA	GL	NE	NM	SO	SW	WP
FY-86										
En Route Operational Errors	676	3	30	108	190	37	32	154	64	58
Aircraft Handled (in mil.)	36.083	0.431	1.723	3.924	8.315	1.643	3.850	7.419	4.887	3.893
	18.73	6.96	17.43	27.52	22.85	22.52	8.31	20.76	13.10	14.90
FY-87										
En Route Operational Errors	835	8	39	143	216	56	65	170	67	91
Aircraft Handled (in mil.)	35.793	0.425	1.746	4.031	7.963	1.668	3.565	7.481	4.918	3.996
	23.33	18.82	22.34	35.48	27.13	33.57	12.62	22.72	13.62	22.77
	125	270	128	129	119	149	152	109	104	153

TERMINAL OPERATIONAL ERRORS per million AIRPORT OPERATIONS
Current Performance vs. Target (Below FY-87 rate)

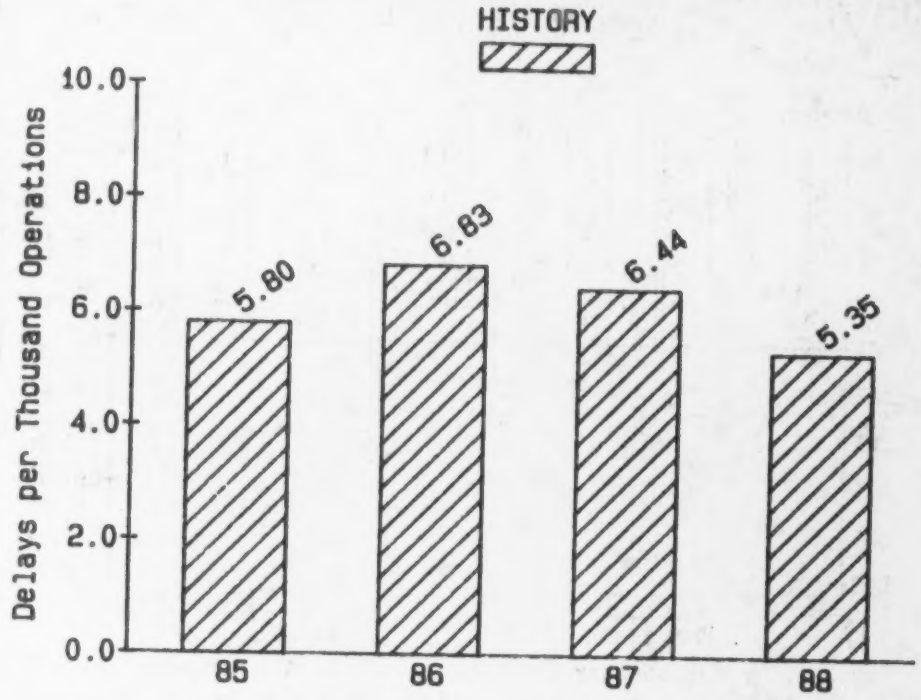


1984	1985	1986	1987
372	403	397	439
56.959	57.937	58.956	60.977
6.53	6.96	6.73	7.20

	NATL	AL	CE	EA	GL	NE	NM	SO	SW	WP
FY-86 Terminal Operational Errors	379	0	10	76	76	26	28	48	48	67
FY-86 Airport Operations (in mil.)	60.179	1.049	2.423	8.216	8.708	3.650	5.243	11.220	6.644	13.823
	6.30	0.00	4.13	9.25	8.73	7.12	5.34	4.28	7.22	5.14
FY-87 Terminal Operational Errors	439	7	15	75	63	18	40	98	46	77
FY-87 Airport Operations (in mil.)	60.977	1.082	2.409	8.328	9.731	3.627	5.074	10.993	6.578	13.155
	7.20	6.47	6.23	9.01	6.47	4.96	7.88	8.91	6.99	5.85
	114	200	151	97	74	70	148	208	97	114

AIR TRAFFIC DELAYS (15 MINUTES OR MORE)

per Thousand AIRPORT OPERATIONS

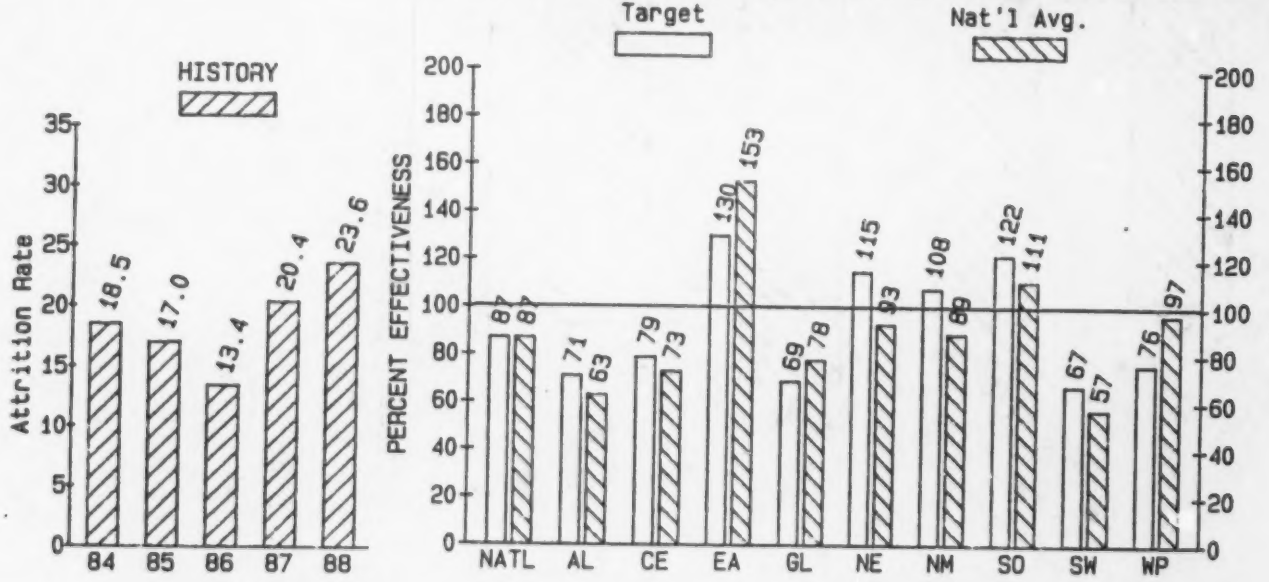


REGIONAL BREAKDOWN NOT AVAILABLE AT THIS TIME. (ATO-130)

AIR TRAFFIC DEVELOPMENTAL ATTRITION RATE*

Current Performance vs. Target (Below FY-87 rate) (bar 1)

Current Performance vs. FY-87 National Average (20.4) (bar 2)



	1984	1985	1986	1987
DEVELOPMENTALS SEPARATED	883	758	530	873
TOTAL DEVELOPMENTALS	4761	4451	3955	4281
ATTRITION RATE	18.5	17.0	13.4	20.4

* Includes Centers, Towers and Flight Service Stations.

FY-86	NATL	AL	CE	EA	GL	NE	NM	SO	SW	WP
DEVELOPMENTALS SEPARATED	1027	45	71	82	263	52	81	117	197	119
TOTAL DEVELOPMENTALS	4357	140	255	616	1001	237	355	634	552	567
ATTRITION RATE	23.6	32.1	27.8	13.3	26.3	21.9	22.8	18.5	35.7	21.0

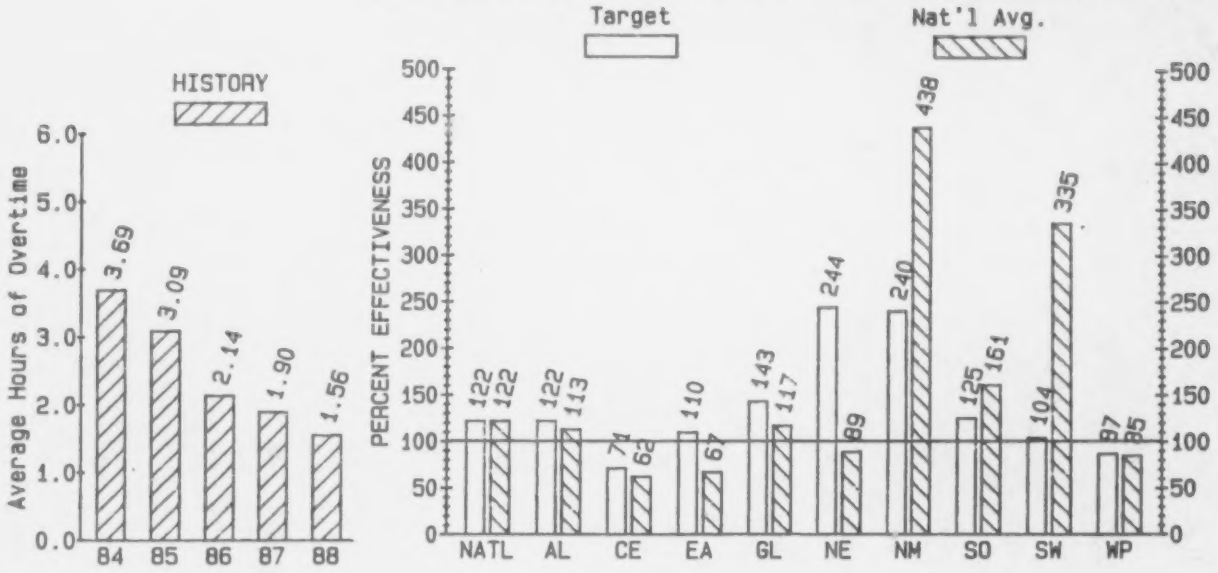
FY-87	NATL	AL	CE	EA	GL	NE	NM	SO	SW	WP
DEVELOPMENTALS SEPARATED	873	30	48	100	180	53	93	158	120	91
TOTAL DEVELOPMENTALS	4281	132	218	579	996	210	376	700	501	569
ATTRITION RATE	20.4	22.7	22.0	17.3	18.1	25.2	24.7	22.6	24.0	16.0
Σ Effectiveness	87	71	79	130	69	115	108	122	67	76

AIR TRAFFIC DEVELOPMENTAL ATTRITION RATE BY CENTERS, TOWERS, AND FLIGHT SERVICE STATIONS

FY-88	NATL	AL	CE	EA	GL	ME	MN	SO	SW	WP
Developmentals Separated	1027	45	71	82	263	52	81	117	197	119
Total Developmentals	4357	140	255	616	1001	237	355	634	552	567
Attrition Rate	23.6	32.1	27.8	13.3	26.3	21.9	22.8	18.5	35.7	21.0
CENTERS										
Developmentals Separated	901	32	60	70	201	43	78	102	205	110
Total Developmentals	4357	140	255	616	1001	237	355	634	552	567
Attrition Rate	20.7	22.9	23.5	11.4	20.1	18.1	22.0	16.1	37.1	19.4
TOWERS										
Developmentals Separated	76	2	5	14	15	7	2	12	13	6
Total Developmentals	4357	140	255	616	1001	237	355	634	552	567
Attrition Rate	1.7	1.4	2.0	2.3	1.5	3.0	0.6	1.9	2.4	1.1
FLIGHT SERVICE STATIONS										
Developmentals Separated	23	5	0	2	6	2	1	3	1	3
Total Developmentals	4357	140	255	616	1001	237	355	634	552	567
Attrition Rate	0.5	3.6	0.0	0.3	0.6	0.8	0.3	0.5	0.2	0.5
CENTERS										
Developmentals Separated	901	32	60	70	201	43	78	102	205	110
Total Center Developmentals	2778	109	151	290	735	143	271	371	330	316
Attrition Rate	32.4	29.4	39.7	24.1	27.3	30.1	28.8	27.5	62.1	34.8
TOWERS										
Developmentals Separated	76	2	5	14	15	7	2	12	13	6
Total Tower Developmentals	1308	18	79	301	252	74	67	234	210	198
Attrition Rate	5.8	11.1	6.3	4.7	6.0	9.5	3.0	5.1	6.2	3.0
FLIGHT SERVICE STATIONS										
Developmentals Separated	23	5	0	2	6	2	1	3	1	3
Total FSS Developmentals	262	16	26	27	26	23	23	36	21	58
Attrition Rate	8.8	31.3	0.0	7.4	23.1	8.7	4.3	8.3	4.8	5.2

CENTERS - AVG. HRS. OVT. per GS-2152 ATC FIELD EMP.

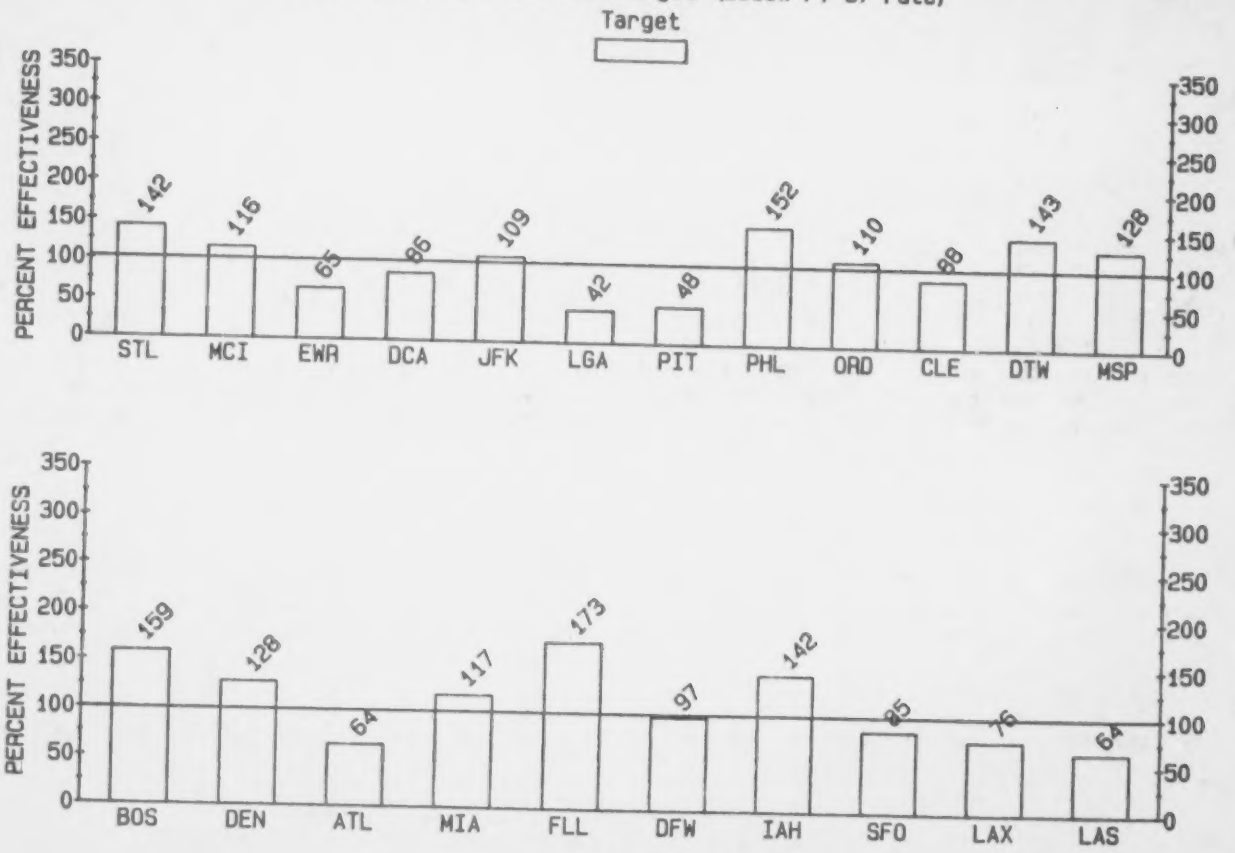
Current Performance vs. Target (Below FY-87 rate) (bar 1)
Current Performance vs. FY-87 National Average (1.90) (bar 2)



1984	1985	1986	1987	FY-88	NATL	AL	CE	EA	GL	NE	NM	SO	SW	WP
674633	610513	431970	381531	OVERTIME HOURS	323799	7520	36005	62165	78567	20833	9876	47348	16279	45206
183064	197772	201401	200351	EMP PAY PERIOD	207769	4454	11777	21875	48619	9710	22696	39984	28621	20233
3.69	3.09	2.14	1.90	AVG. OVERTIME	1.56	1.69	3.06	2.86	1.62	2.15	0.44	1.18	0.57	2.23
				FY-87										
				OVERTIME HOURS	381531	8557	24534	62913	105230	41972	22998	57647	17418	40262
				EMP PAY PERIOD	200351	4161	11373	20186	45489	8026	21987	38915	39577	20659
				AVG. OVERTIME	1.90	2.07	2.16	3.12	2.31	5.23	1.05	1.48	0.59	1.95
				% Effectiveness	122	122	71	110	143	244	240	125	104	87

22 PACING AIRPORTS - AVG. HRS. OVT. per GS-2152 ATC FIELD EMP.

Current Performance vs. Target (Below FY-87 rate)

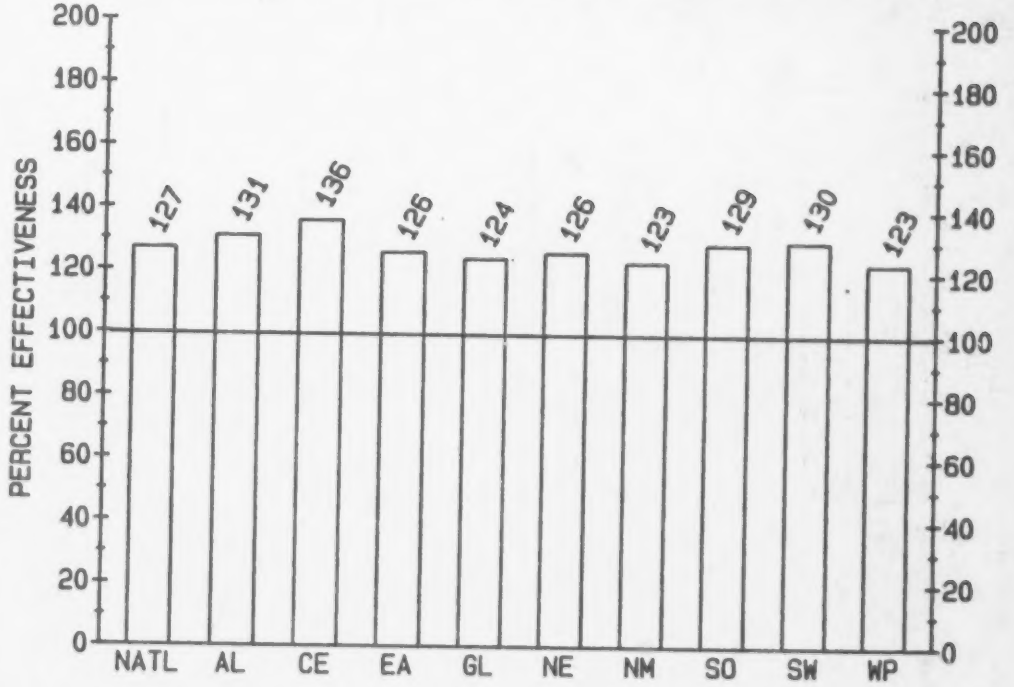


22 PACING AIRPORTS - AVERAGE HOURS OF OVERTIME
per GS-2152 ATC Field Employee per pay period

	TOTAL	STL	MCI	EWR	DCA	JFK	LGA	PIT	PHL	ORD	CLE	DTW	MSP	BOS	DEN	ATL	MIA	FLL	DFW	IAH	SFO	LAX	LAS
FY-88																							
Overtime hours	96784	3134	1807	1101	205	1430	1514	5371	2966	29784	946	3909	2679	5830	1512	9533	2050	314	1284	1376	1751	10175	8113
Employee pay period	38530	2072	1397	712	1781	724	654	1570	1742	3523	1412	2245	2035	2058	2201	2728	2441	660	2363	2120	931	1884	1277
Average Overtime	2.51	1.51	1.29	1.55	0.12	1.98	2.31	3.42	1.70	8.45	0.67	1.74	1.32	2.83	0.69	3.49	0.84	0.48	0.54	0.65	1.88	5.40	6.35
FY-87																							
Overtime hours	97679	4116	2032	956	205	1844	828	3202	5178	30902	822	5257	3083	8631	1959	6110	2564	529	1218	1852	1387	10141	4863
Employee Pay Period	39573	1915	1354	948	2077	853	854	1940	1998	3313	1399	2117	1830	1913	2226	2722	2611	641	2300	2006	867	2485	1204
Average Overtime	2.47	2.15	1.50	1.01	0.10	2.16	0.97	1.65	2.59	9.33	0.59	2.48	1.68	4.51	0.88	2.24	0.98	0.83	0.53	0.92	1.60	4.08	4.04
Percent Effectiveness:																							
Regional Target / Current =	98	142	116	65	86	109	42	48	152	110	88	143	128	159	128	64	117	173	97	142	85	76	64

AVG. NUMBER OF OUTAGES INDEX SCORE - TARS

Outage Index Score vs. 70.0 Performance Level

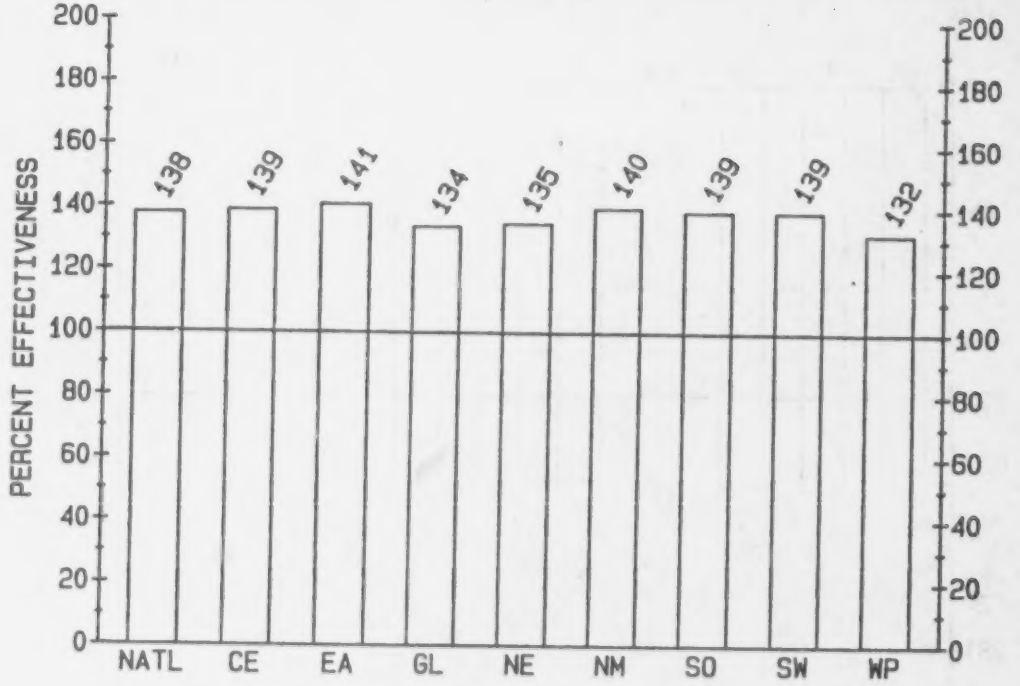


FY-88

AVERAGE NUMBER OF OUTAGES INDEX SCORE	NATL	AL	CE	EA	GL	NE	NM	SO	SW	WP
	88.8	91.7	95.0	87.9	86.9	88.2	85.8	90.6	91.3	85.8
% Effectiveness	127	131	136	126	124	126	123	129	130	123

AVG. NUMBER OF OUTAGES INDEX SCORE - CRAD

Outage Index Score vs. 70.0 Performance Level

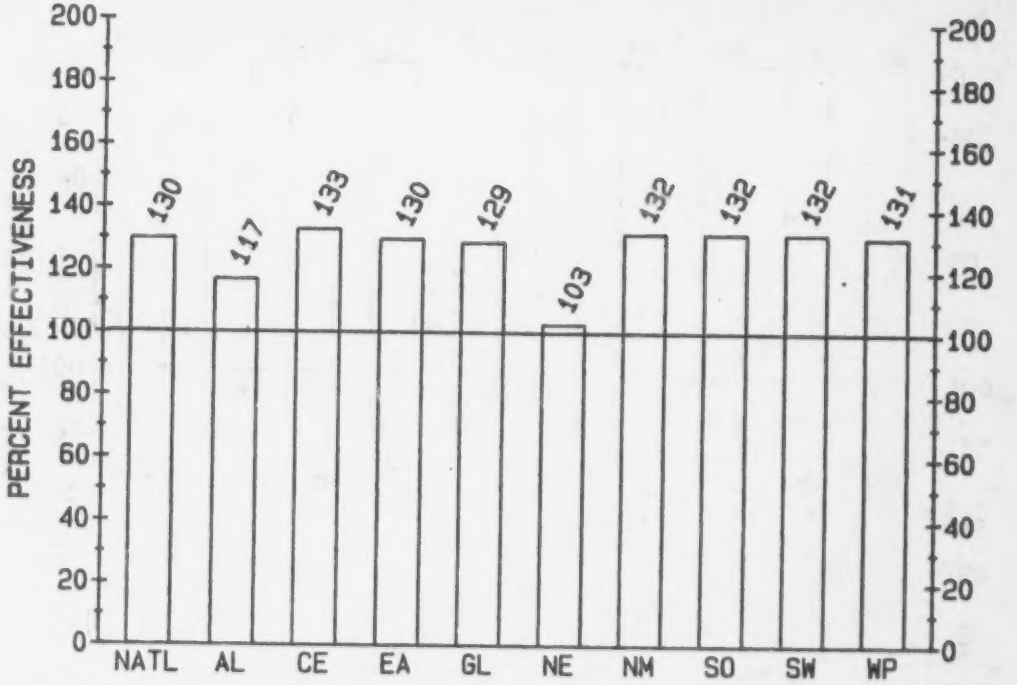


FY-86

	NATL	CE	EA	GL	NE	NM	SO	SW	WP
AVERAGE NUMBER OF OUTAGES INDEX SCORE	96.3	97.2	98.6	94.1	94.3	97.7	97.4	97.5	92.7
% Effectiveness	138	139	141	134	135	140	139	139	132

AVG. NUMBER OF OUTAGES INDEX SCORE - VOR

Outage Index Score vs. 70.0 Performance Level

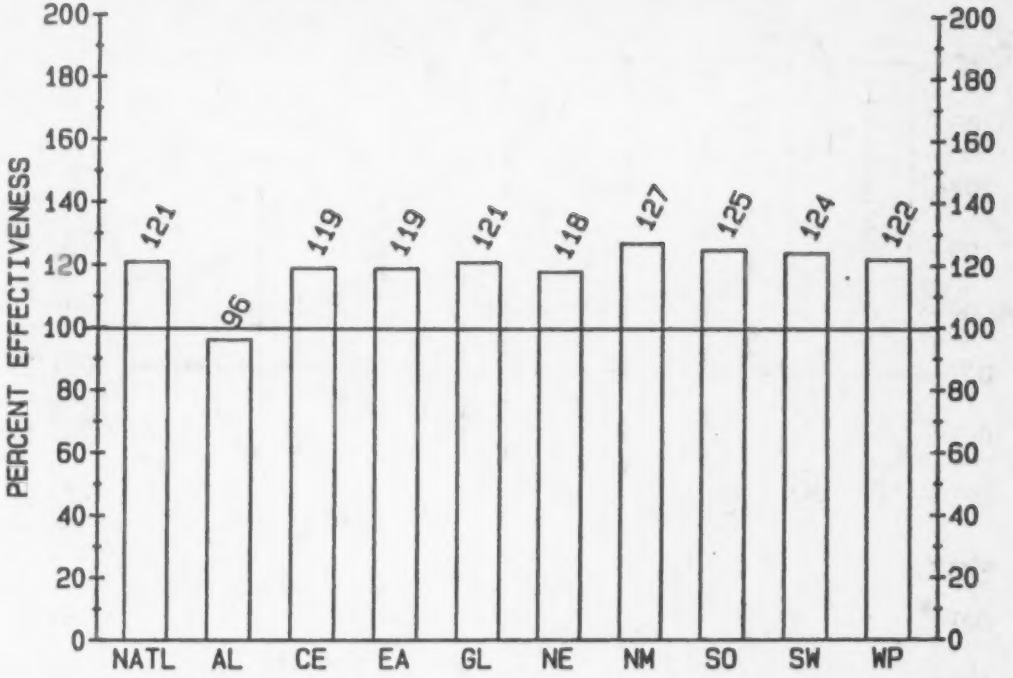


FY:88

	NATL	AL	CE	EA	GL	NE	NM	SO	SW	WP
AVERAGE NUMBER OF OUTAGES INDEX SCORE	90.8	81.8	93.3	91.2	90.4	72.1	92.5	92.4	92.4	91.9
% Effectiveness	130	117	133	130	129	103	132	132	132	131

AVG. NUMBER OF OUTAGES INDEX SCORE - LOC

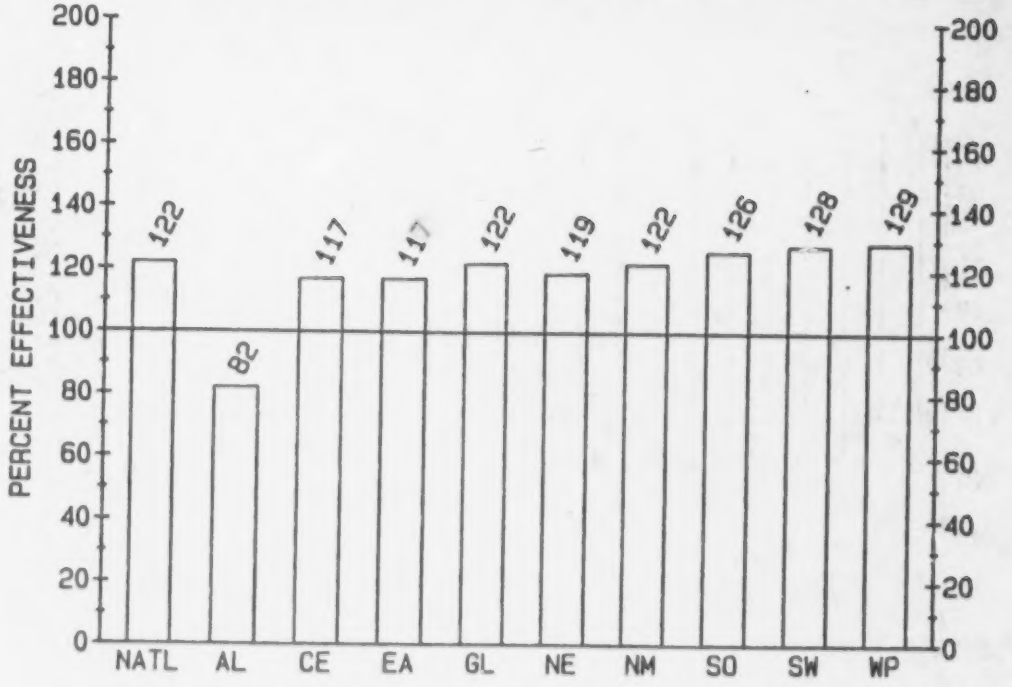
Outage Index Score vs. 70.0 Performance Level



FY-88	NATL	AL	CE	EA	GL	NE	NM	SO	SW	WP
AVERAGE NUMBER OF OUTAGES INDEX SCORE	84.9	67.2	83.4	83.3	84.4	82.4	89.1	87.7	86.5	85.4
% Effectiveness	121	96	119	119	121	118	127	125	124	122

AVG. NUMBER OF OUTAGES INDEX SCORE - GS

Outage Index Score vs. 70.0 Performance Level

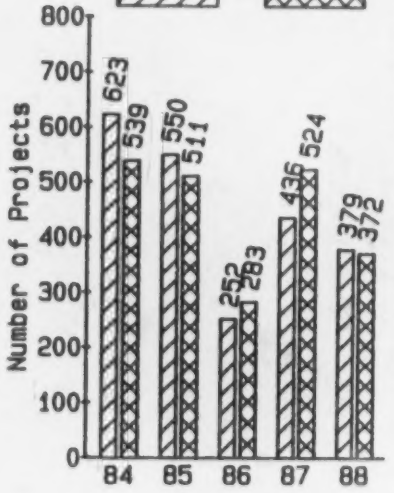


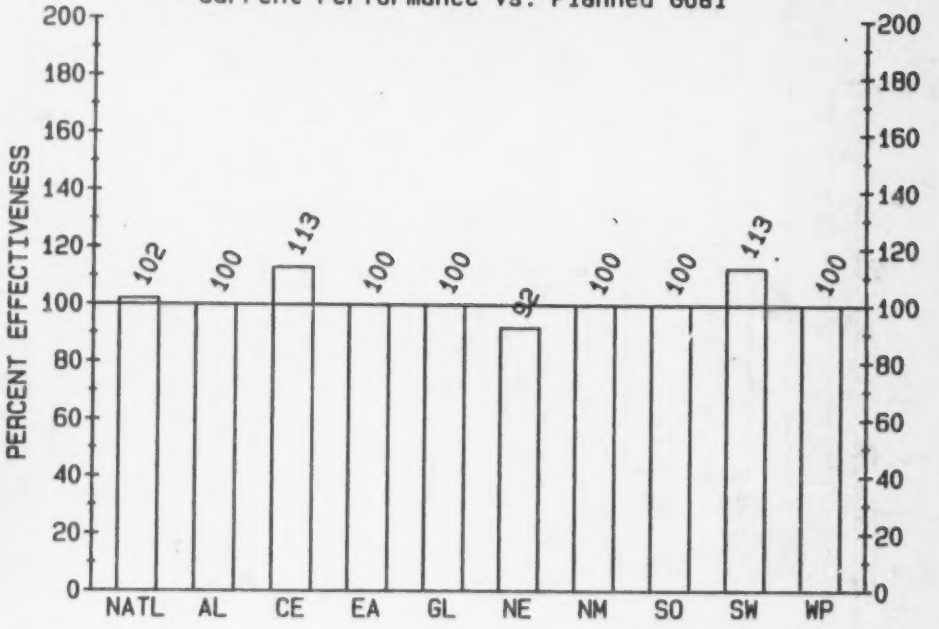
FY-88	NATL	AL	CE	EA	GL	NE	NM	SO	SW	WP
AVERAGE NUMBER OF OUTAGES INDEX SCORE	85.4	57.4	82.1	82.1	85.6	83.3	85.4	88.3	89.9	90.0
% Effectiveness	122	82	117	117	122	119	122	126	128	129

F & E PROJECT ACCOMPLISHMENT GOALS

(Commissionings, Relocations, and Replacements)

Current Performance vs. Planned Goal

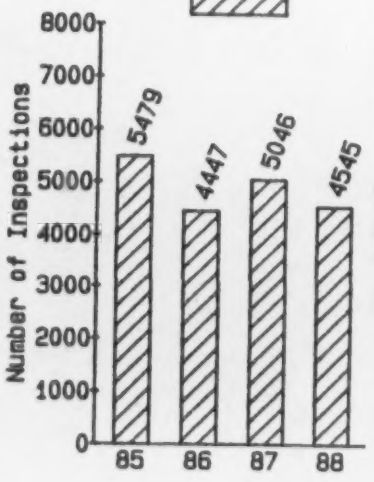


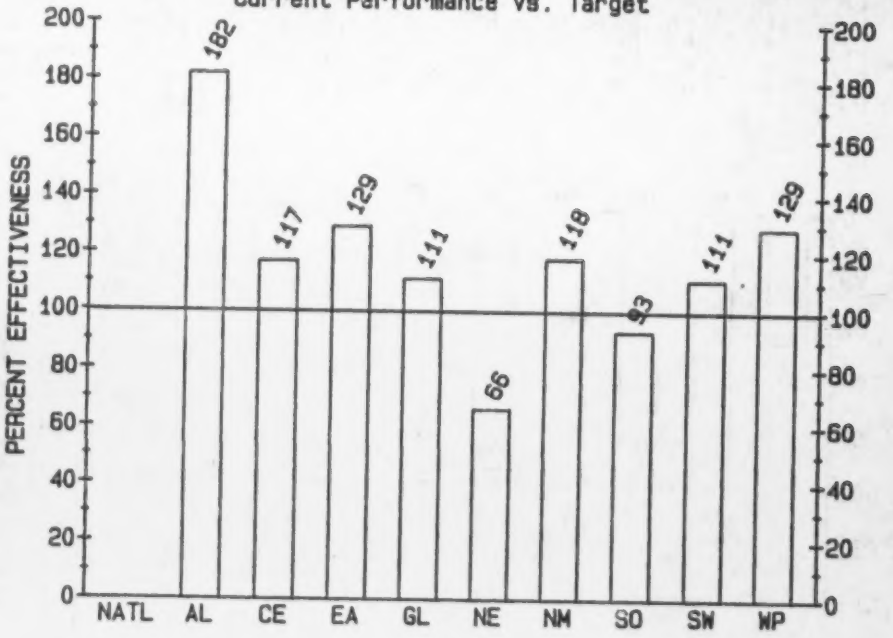


1983	1984	1985	1986	1987		FY-88	NATL	AL	CE	EA	GL	NE	NM	SO	SW	WP
176	623	550	252	436	ACTUAL	ACCOMPLISHMENTS	379	28	26	22	69	23	55	80	54	22
246	539	511	283	524		PLANNED GOALS	372	28	23	22	69	25	55	80	48	22
						% Effectiveness	102	100	113	100	100	92	100	100	113	100

AIRPORT INSPECTIONS per AIRPORT EMPLOYEE

Current Performance vs. Target



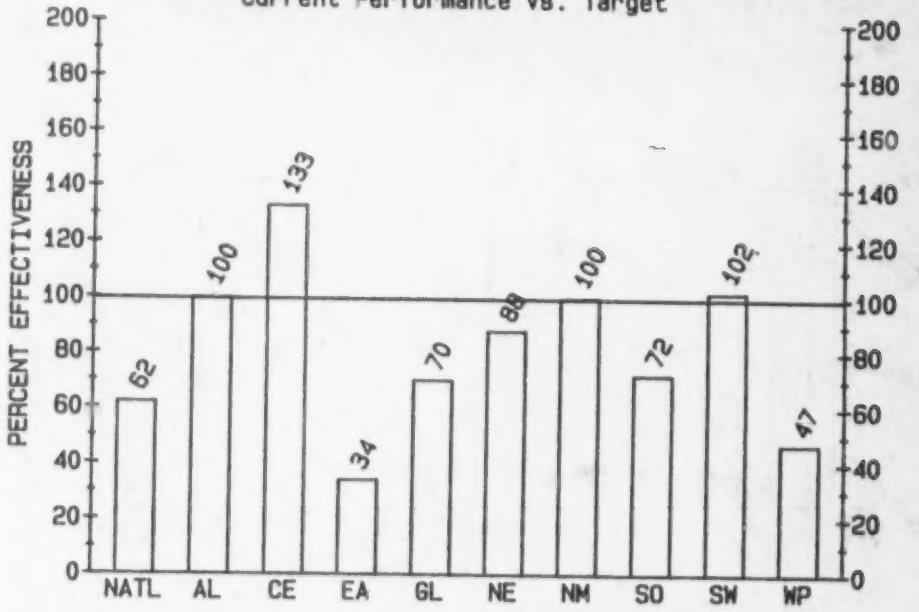


FY-88	NATL	AL	CE	EA	GL	NE	NM	SO	SW	WP
NUMBER OF INSPECTIONS	4545	245	312	212	1144	212	444	705	751	518
NUMBER OF FTP EMPLOYEES	378	16	32	41	62	15	49	63	54	46
RATIO	12.0	15.3	9.8	5.2	18.5	14.1	9.1	11.2	13.9	11.3
TARGET		8.4	8.3	4.0	16.7	21.5	7.7	12.0	12.5	8.7
% Effectiveness (Ratio / Target)		182	117	129	111	66	118	93	111	129
FY-88 Target		8.4	8.3	4.0	16.7	21.5	7.7	12.0	12.5	8.7
% FY-88 Target Attained (Ratio / FY-88 Target)		182	117	129	111	66	118	93	111	129

Percentage Decrease of Grant Projects

4 years old or older

Current Performance vs. Target



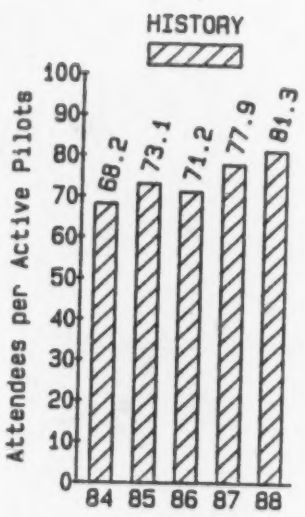
	NATL	AL	CE	EA	GL	NE	NM	SO	SW	WP
ACTUAL (open thru 4th Qtr FY-88)	684	6	11	207	153	65	16	22	22	181
*GRANT PROJECTS OPEN 4YRS OR OLDER	994	12	33	249	235	116	32	36	45	236
PERCENT OF DECREASE	31.2	50.0	66.7	16.9	34.9	44.0	50.0	38.9	51.1	23.3
TARGET	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0
% Effectiveness (% of Decrease/Target)	62	100	133	34	70	88	100	78	102	47

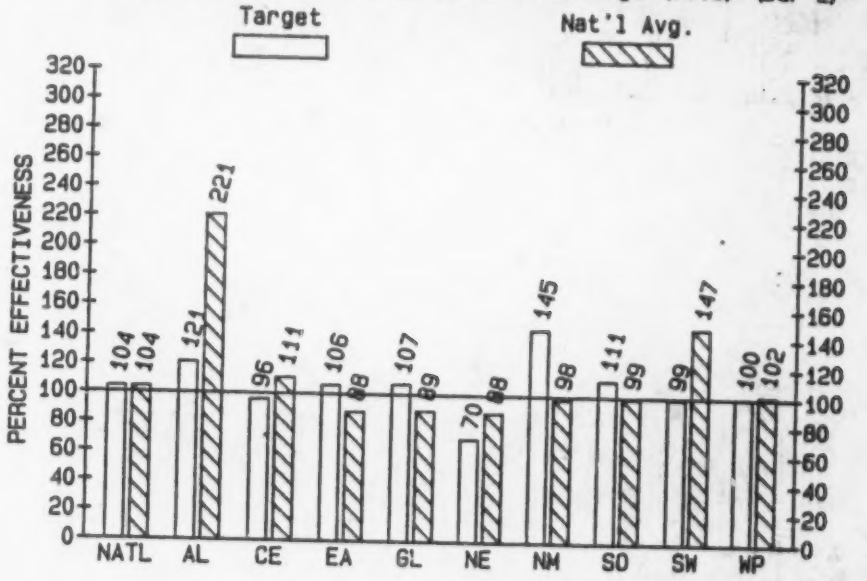
*Opened as of 10/1/87.

ATTENDEES AT ACCIDENT PREVENTION PROGRAM per ACTIVE PILOTS (thou)

Current Performance vs. Target (Above FY-87 rate) (bar 1)

Current Performance vs. FY-87 National Average (77.9) (bar 2)

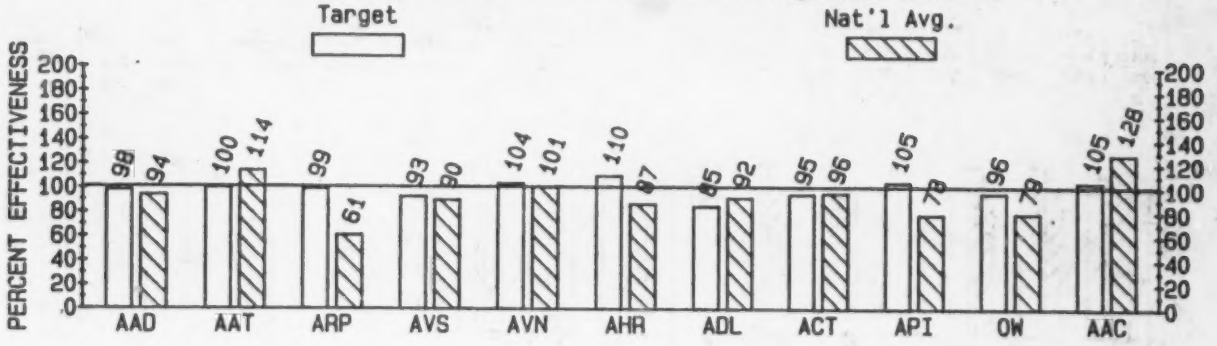


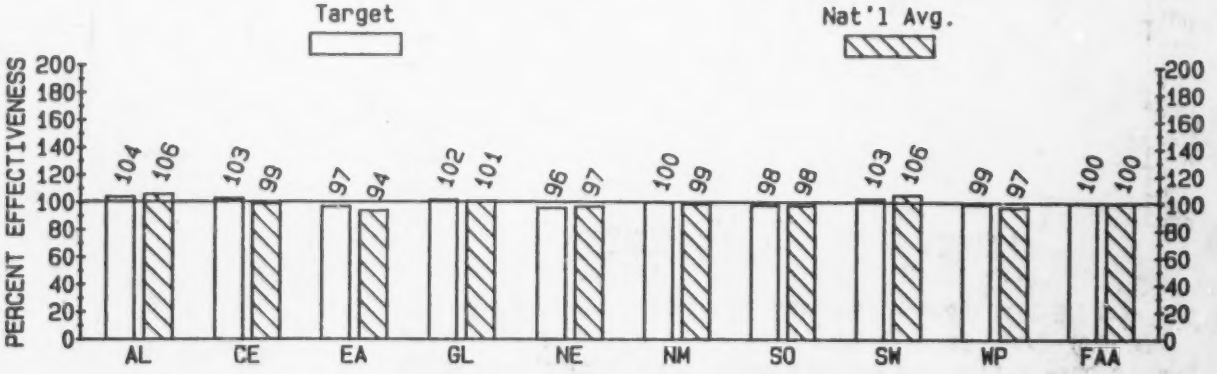


1983	1984	1985	1986	1987	FY-88	Natl	AL	CE	EA	GL	NE	NM	SO	SW	WP
461313	478152	510958	490507	539681	NUMBER OF ATTENDEES	552539	18204	30735	62859	80478	23489	50057	90689	97622	94206
700082	701077	698604	688566	692738	AVG. # OF ACTIVE PILOTS	679774	10559	35401	91651	116130	34294	65381	117397	84974	123987
65.9	68.2	73.1	71.2	77.9	PERCENT	81.3	172.4	86.8	68.6	69.3	68.5	76.6	77.4	114.9	79.2
					FY-87										
					NUMBER OF ATTENDEES	539681	15828	33094	59976	76611	33598	35348	81619	103280	101407
					AVG. # OF ACTIVE PILOTS	692738	11161	36542	92642	117408	34353	66902	117232	88819	127899
					PERCENT	77.9	142.1	90.6	64.7	66.7	97.8	52.8	69.5	116.2	79.4
					% EFFECTIVENESS	104	121	96	106	107	70	145	111	99	100

EMPLOYEE per SUPERVISOR

Current Performance vs. Target (Below FY-87 rate) (bar 1)
Current Performance vs. FY-87 National Average (6.6) (bar 2)





EMPLOYEE per SUPERVISOR
TOTAL AGENCY

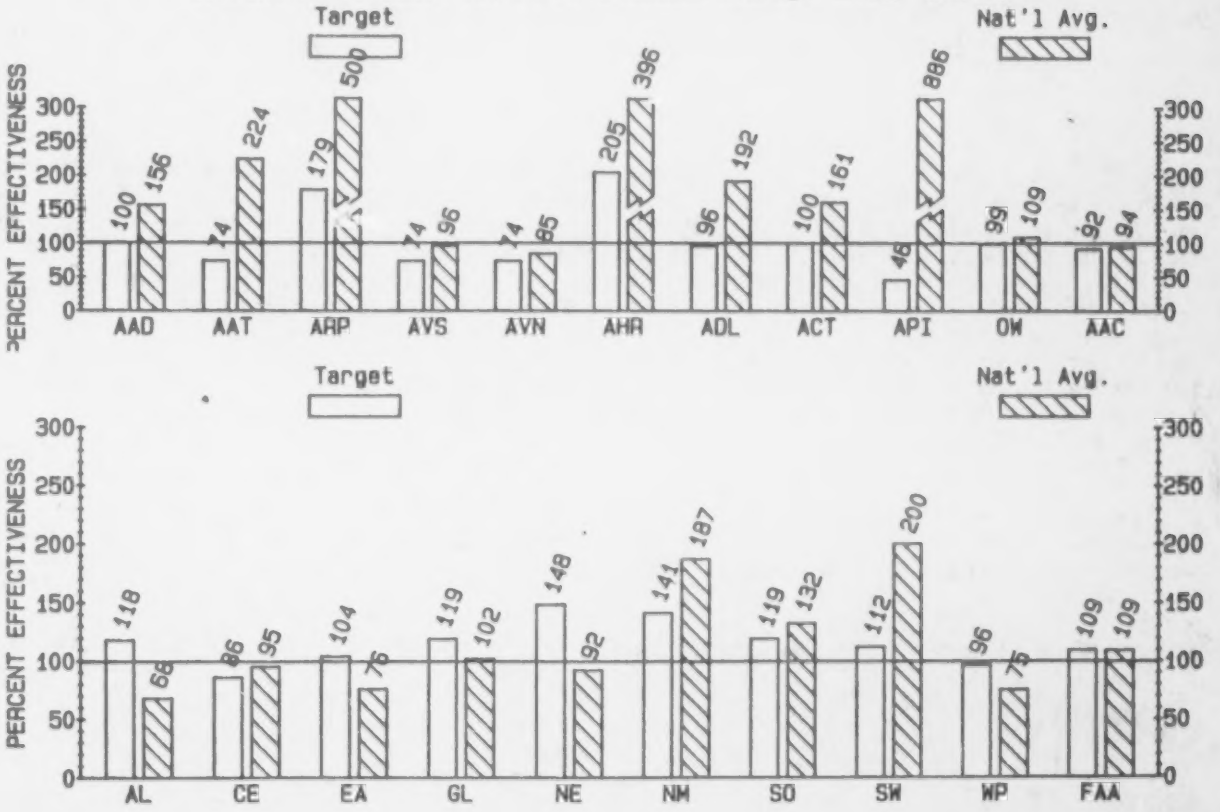
	----Fiscal Year Data------																						
	1983	1984	1985	1986	1987	AAD	AAT	ARP	AVS WNQ	AVW	AWR	ADL WNQ	ACT	API	OM	AAC	AL	CE	EA	GL	ME	MN	SO	SW	LP	FAA
FY-88																										
Number of Employees*	46544	47857	46811	45767	47845	471	543	81	579	880	191	763	990	192	289	2132	1412	2780	5577	6775	1955	4359	8100	5686	5513	49268
Number of Supervisors	7645	7398	7269	6948	7222	76	72	20	97	132	33	125	155	37	55	252	201	426	893	1013	305	666	1242	807	857	7464
Percent	6.1	6.5	6.4	6.6	6.6	6.2	7.5	4.1	6.0	6.7	5.8	6.1	6.4	5.2	5.3	8.5	7.0	6.5	6.2	6.7	6.4	6.5	6.5	7.0	6.4	6.6
Target FY-87																										
Number of Employees*						436	496	86	525	852	169	693	1005	198	262	2003	1371	2632	5441	6624	1876	4279	7999	5537	5361	47845
Number of Supervisors						69	66	21	82	133	32	96	149	40	48	238	203	417	849	1014	280	652	1202	806	825	7222
Percent						6.3	7.5	4.1	6.4	6.4	5.3	7.2	6.7	5.0	5.5	8.4	6.8	6.3	6.4	6.5	6.7	6.6	6.7	6.9	6.5	6.6
Percent Effectiveness:																										
Current / Target =						98	100	99	93	104	110	85	95	105	96	101	104	103	97	102	96	100	98	103	99	100
Current / FY-87 National Avg. (6.6) =						94	116	61	90	101	87	92	96	78	79	128	106	99	94	101	97	99	98	106	97	100

Employee include full time permanent, full time other, part time permanent, intermittent, and part time other.
* Includes Supervisors

AVERAGE HOURS OVERTIME per EMPLOYEE PAY PERIOD - TOTAL AGENCY

Current Performance vs. Target (Below FY-87 rate) (bar 1)

Current Performance vs. FY-87 National Average (1.22) (bar 2)



AVERAGE HOURS OF OVERTIME per PERSON per PAY PERIOD (in thousands)
TOTAL AGENCY

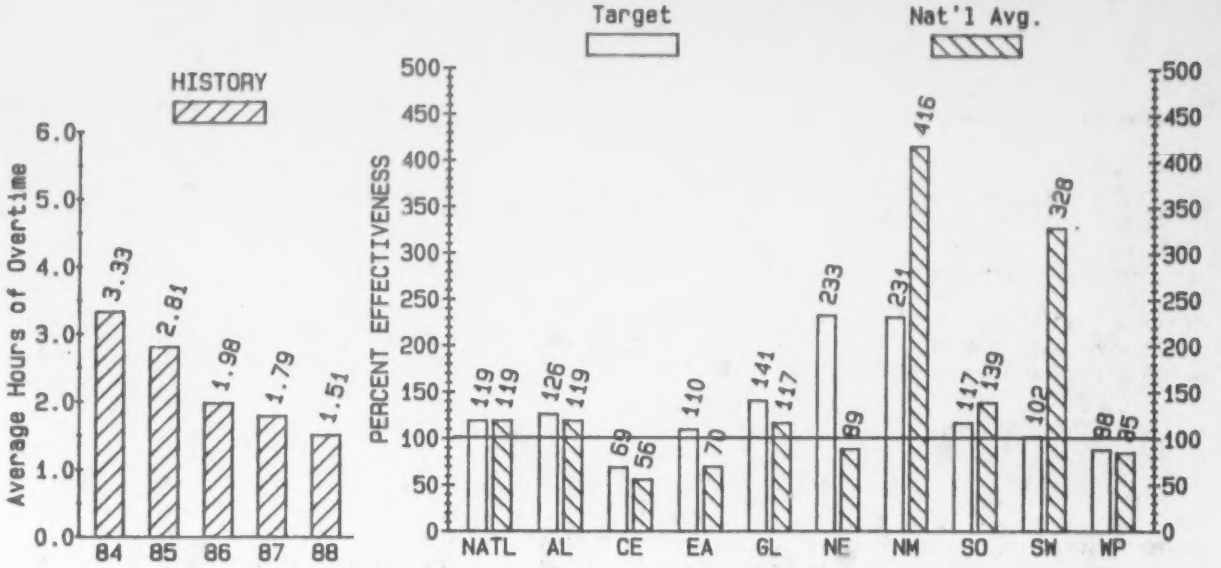
	AAD	AAT	ARP	AVS	AVW	AWP	ADL	ACT	API	OM	AAC	AL	CE	EA	GL	ME	MN	SO	SW	WP	FAA
FY-88																					
Overtime hours	9.19	6.55	0.54	46.39	32.09	1.50	25.12	20.73	0.69	7.42	70.21	63.34	89.47	225.93	207.74	64.67	73.08	190.95	88.06	226.43	1397.28
Employee pay period	11753	12027	2216	36560	22389	4869	39663	27385	5014	6615	54071	35523	69473	141680	173812	49062	111863	206778	144281	140148	1265408
Average Overtime	0.78	0.54	0.24	1.27	1.43	0.31	0.63	0.76	0.14	1.12	1.30	1.78	1.29	1.59	1.20	1.32	0.65	0.92	0.61	1.62	1.12
Target FY-87																					
Overtime hours	8.89	4.61	0.94	32.36	22.76	3.00	26.00	18.74	0.31	7.72	62.15	70.98	74.40	227.03	239.03	87.87	100.91	219.57	95.74	211.07	1472.58
Employee pay period	11323	11448	2150	34629	21478	4756	42793	24713	4896	6938	51931	33865	67542	136696	168347	45158	109510	200331	139526	136379	1208218
Average Overtime	0.79	0.40	0.44	0.93	1.06	0.63	0.61	0.76	0.06	1.11	1.20	2.10	1.10	1.66	1.42	1.95	0.92	1.10	0.69	1.55	1.22
Percent Effectiveness:																					
Target / Current =	100	74	179	74	74	205	96	100	46	99	92	118	86	104	119	148	141	119	112	96	109
FY87 Natl Avg. / Current=	156	224	500	96	85	396	192	161	886	109	94	68	95	76	102	92	187	132	200	75	109

OVERTIME INCLUDES: Normal overtime hours, True overtime hours, Normal compensation hours, True compensation hours, Overtime hours suffered and permitted, Travel hours, and Regular permanent hours

AVG. HOURS OVERTIME per EMPLOYEE PAY PERIOD - CENTERS

Current Performance vs. Target (Below FY-87 rate) (bar 1)

Current Performance vs. FY-87 National Average (1.79) (bar 2)



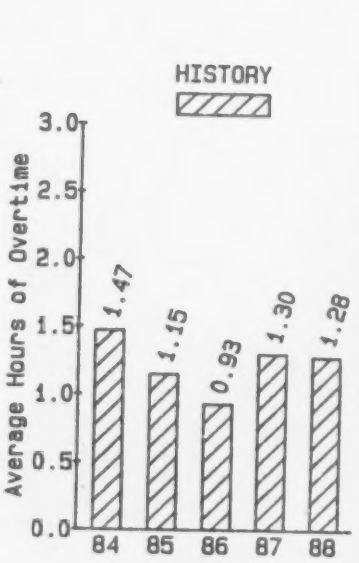
1984	1985	1986	1987	FY-88	NATL	AL	CE	EA	GL	NE	NM	SO	SW	WP
719980	650962	666613	414689	OVERTIME HOURS	356733	8376	41729	63821	81828	21098	11071	61130	18135	49546
216474	231381	234376	231159	EMP PAY PERIOD	236777	5562	13115	24805	53265	10485	25681	47295	33168	23401
3.33	2.81	1.98	1.79	AVG. OVERTIME	1.51	1.51	3.18	2.57	1.54	2.01	0.43	1.29	0.55	2.12

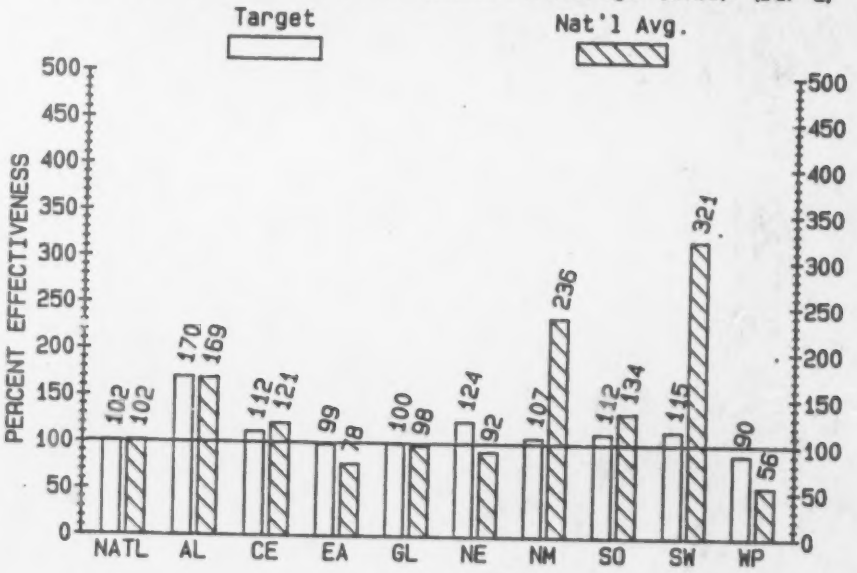
FY-87	NATL	AL	CE	EA	GL	NE	NM	SO	SW	WP
OVERTIME HOURS	414689	10119	28203	64832	109776	42434	25387	70372	19208	44358
EMP PAY PERIOD	231159	5351	12842	22935	50648	9069	25471	46449	34540	23854
AVG. OVERTIME	1.79	1.89	2.20	2.83	2.17	4.68	1.00	1.52	0.56	1.86
% Effectiveness	119	126	69	110	141	233	231	117	102	88

AVG. HRS OVERTIME per EMPLOYEE PAY PERIOD - TERMINALS

Current Performance vs. Target (Below FY-87 rate) (bar 1)

Current Performance vs. FY-87 National Average (1.30) (bar 2)





	1984	1985	1986	1987
OVERTIME HOURS	390967	305134	240886	340501
EMP PAY PERIOD	266209	265989	259352	261669
AVG. OVERTIME	1.47	1.15	0.93	1.30

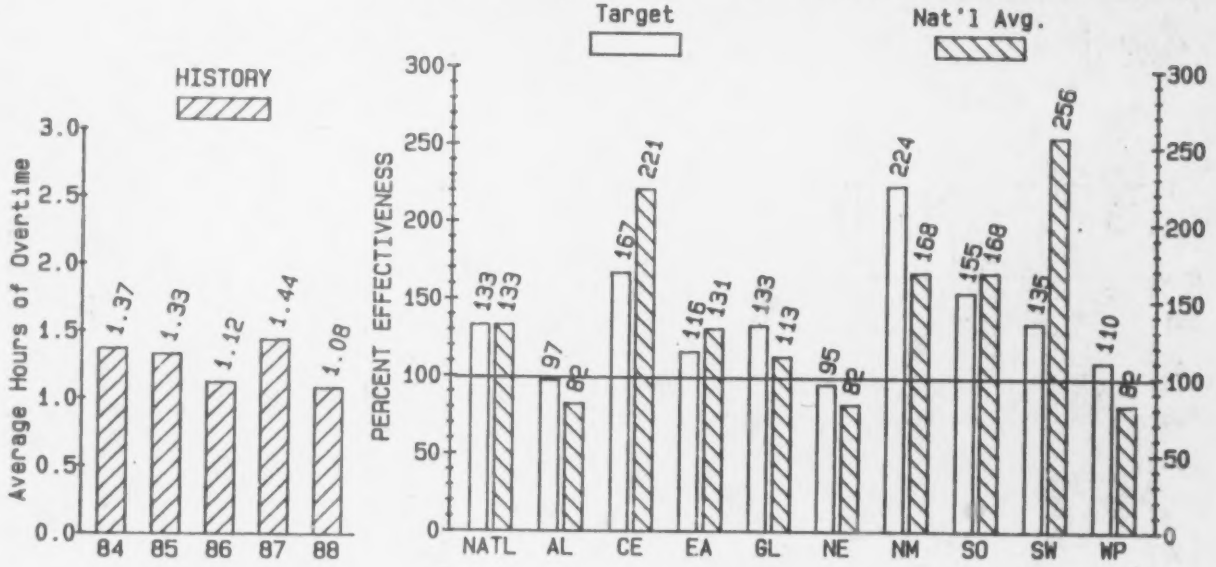
FY-88	NATL	AL	CE	EA	GL	NE	NM	SO	SW	WP
OVERTIME HOURS	357052	2558	14532	78953	40221	18039	11480	55323	14441	101504
EMP PAY PERIOD	279276	3313	13512	47101	45428	12762	20830	56123	35649	43756
AVG. OVERTIME	1.28	0.77	1.08	1.68	1.33	1.41	0.55	0.97	0.41	2.32

FY-87	NATL	AL	CE	EA	GL	NE	NM	SO	SW	WP
OVERTIME HOURS	340502	4138	14699	73581	57819	20441	11885	58366	15878	88296
EMP PAY PERIOD	261669	3153	12170	44272	43213	11684	20166	53569	32489	41833
AVG. OVERTIME	1.30	1.31	1.21	1.66	1.32	1.75	0.59	1.09	0.47	2.08
% Effectiveness	102	170	112	99	100	124	107	112	115	90

AVG. HOURS OVERTIME per EMPLOYEE PAY PERIOD - FSSs

Current Performance vs. Target (Below FY-87 rate) (bar 1)

Current Performance vs. FY-87 National Average (1.44) (bar 2)

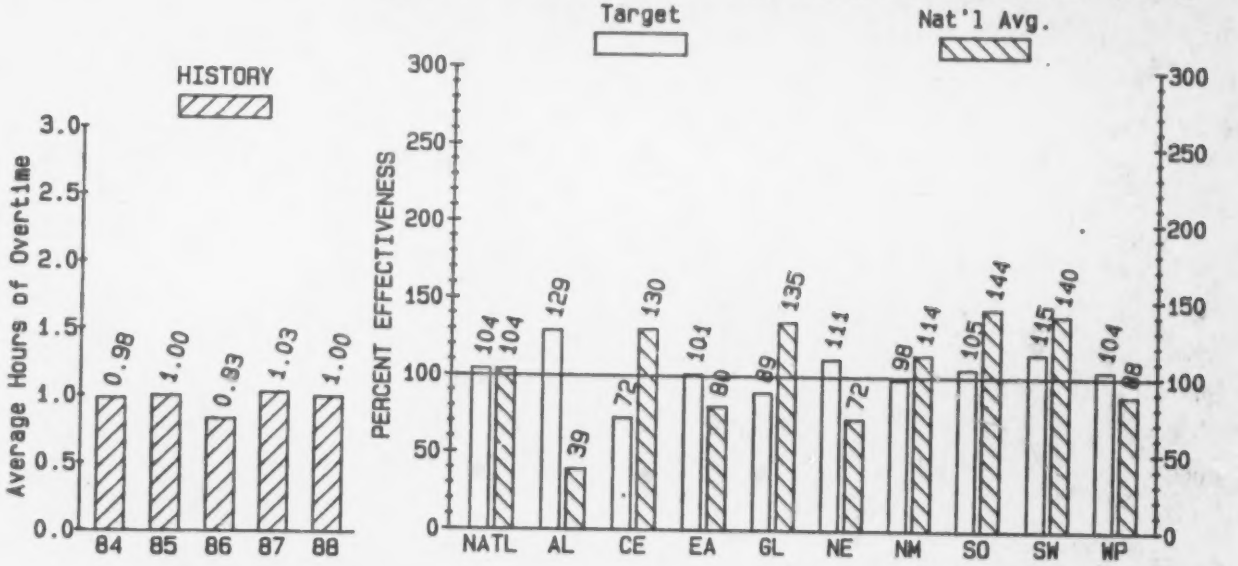


1984	1985	1986	1987	FY-88	NATL	AL	CE	EA	GL	NE	NM	SO	SW	WP
162178	157045	133080	165743	OVERTIME HOURS	121431	10035	5394	16274	22023	7978	10051	19073	8557	22046
118170	118370	118658	114828	EMP PAY PERIOD	112294	5692	8275	14811	17294	4552	11665	22264	15152	12589
1.37	1.33	1.12	1.44	AVG. OVERTIME	1.08	1.76	0.65	1.10	1.27	1.75	0.86	0.86	0.56	1.75
				FY-87										
				OVERTIME HOURS	165743	9608	9536	19078	30862	6750	22864	29139	12889	24918
				EMP PAY PERIOD	114828	5643	8745	15626	18221	4038	11829	21913	15906	12909
				AVG. OVERTIME	1.44	1.70	1.09	1.28	1.69	1.67	1.93	1.33	0.76	1.93
				% Effectiveness	133	97	167	116	133	95	224	155	135	110

AVG HRS OVERTIME per EMP PAY PERIOD- AIRWAY FACILITIES

Current Performance vs. Target (Below FY-87 rate) (bar 1)

Current Performance vs. FY-87 National Average (1.03) (bar 2)

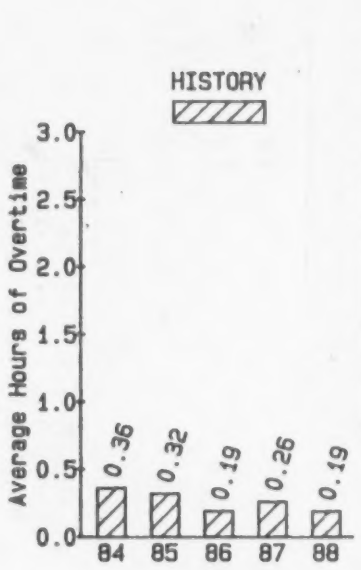


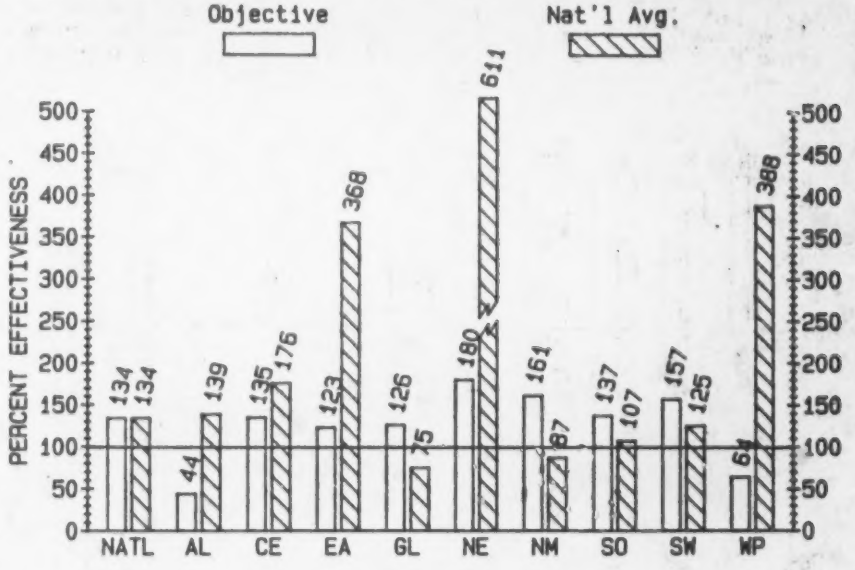
1984	1985	1986	1987	FY-88	NATL	AL	CE	EA	GL	NE	NM	SO	SW	WP
231034	227391	179178	221565	OVERTIME HOURS	219949	24944	9759	36790	25356	12871	21576	32542	22685	33426
235701	227513	216825	214689	EMP PAY PERIOD	220872	9375	12286	28375	33180	8934	23821	45449	30852	28602
0.98	1.00	0.83	1.03	AVG. OVERTIME	1.00	2.66	0.79	1.30	0.76	1.44	0.91	0.72	0.74	1.17
				FY-87										
				OVERTIME HOURS	221546	29523	6954	35848	22067	13866	20435	32658	25470	34543
				EMP PAY PERIOD	214689	8576	12225	27441	32562	8676	22993	43386	30318	28514
				AVG. OVERTIME	1.03	3.44	0.57	1.31	0.68	1.60	0.89	0.75	0.85	1.21
				% Effectiveness	104	129	72	101	89	111	98	105	115	104

AVG HRS OVERTIME per EMP PAY PERIOD- AVIA. STANDARDS

Current Performance vs. Target (Below FY-87 rate) (bar 1)

Current Performance vs. FY-87 National Average (0.26) (bar 2)





1984	1985	1986	1987	FY-88	NATL	AL	CE	EA	GL	NE	NM	SO	SW	WP
16336	15442	9000	14095	OVERTIME HOURS	11299	326	605	482	2898	80	2042	2465	1712	690
45315	47726	48522	54649	EMP PAY PERIOD	58808	1764	4135	6890	8407	1892	6861	10213	8276	10370
0.36	0.32	0.19	0.26	AVG. OVERTIME	0.19	0.18	0.15	0.07	0.34	0.04	0.30	0.24	0.21	0.07
				FY-87										
				OVERTIME HOURS	14096	142	757	546	3445	124	3112	3112	2441	414
				EMP PAY PERIOD	54649	1761	3830	6347	7962	1635	6508	9381	7526	8609
				AVG. OVERTIME	0.26	0.08	0.20	0.09	0.43	0.08	0.48	0.33	0.32	0.04
				% Effectiveness	134	44	135	123	126	180	161	137	157	64

TREND INDICATORS - Definitions

Separation Rates - The separation rate is the ratio of separations, those employees who have left the agency for any reason, to the number of full time permanent employees on board. Comparison is the precentage that separated for the reporting period measured against prior year percentage for the same period. Data source CPMIS/AMS-420.

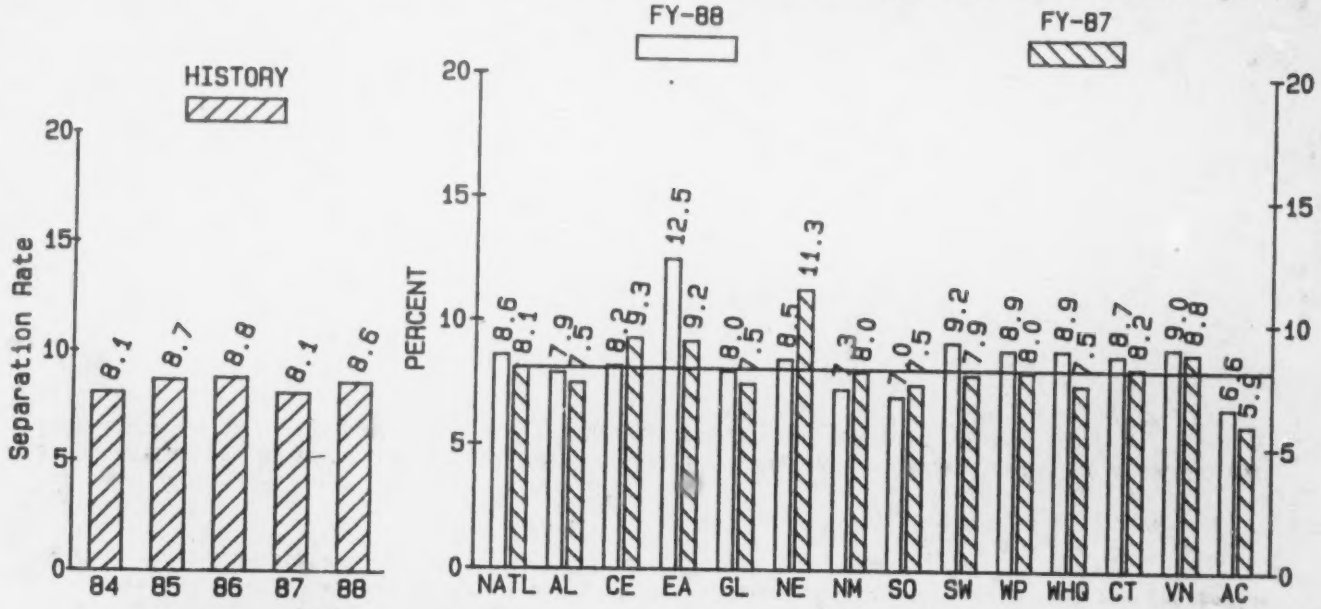
NOTE:

TREND INDICATORS ARE NOT BEING MEASURED BY PERCENT EFFECTIVENESS. THESE INDICATORS ARE USED FOR TREND PURPOSES ONLY AND SHOULD NOT BE INCLUDED IN THE REGIONS PERFORMANCE.

SEPARATION RATE

FTP Employees

Below line is better than Prior Year National Average



	1984	1985	1986	1987
FTP SEPARATIONS	3681	4035	4004	3685
FTP EMPLOYEES	45500	46324	45468	45725
% SEPARATED	8.1	8.7	8.8	8.1

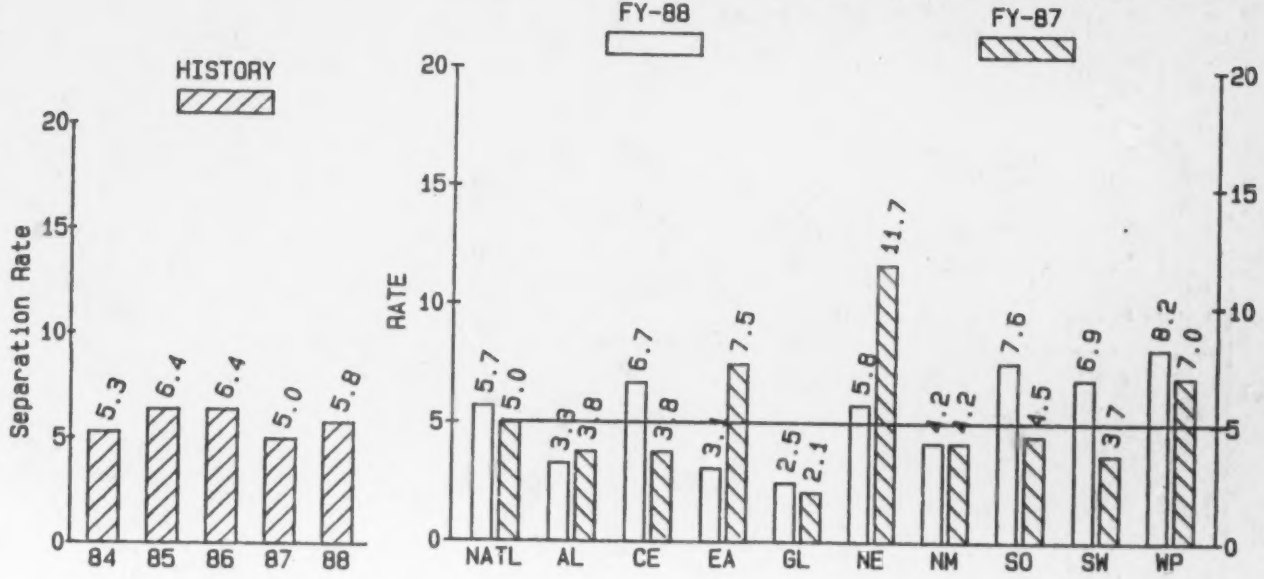
FY-88	NATL	AL	CE	EA	GL	NE	NM	SO	SW	WP	WHQ	CT	VN	AC
FTP SEPARATIONS	4040	103	216	657	528	159	309	550	506	477	212	101	77	143
FTP EMPLOYEES	47198	1311	2629	5269	6602	1862	4238	7876	5474	5348	2371	1161	859	2200
% SEPARATED	8.6	7.9	8.2	12.5	8.0	8.5	7.3	7.0	9.2	8.9	8.9	8.7	9.0	6.6

FY-87	NATL	AL	CE	EA	GL	NE	NM	SO	SW	WP	WHQ	CT	VN	AC
FTP SEPARATION	3685	94	236	470	479	196	334	574	418	418	187	84	75	120
FTP EMPLOYEES	45725	1258	2539	5122	6398	1732	4153	7645	5284	5211	2485	1030	851	2017
% SEPARATED	8.1	7.5	9.3	9.2	7.5	11.3	8.0	7.5	7.9	8.0	7.5	8.2	8.8	5.9

SEPARATION RATE

Engineers

Below line is better than Prior Year National Average



1984	1985	1986	1987
80	102	103	83
1505	1597	1602	1670
5.3	6.4	6.4	5.0

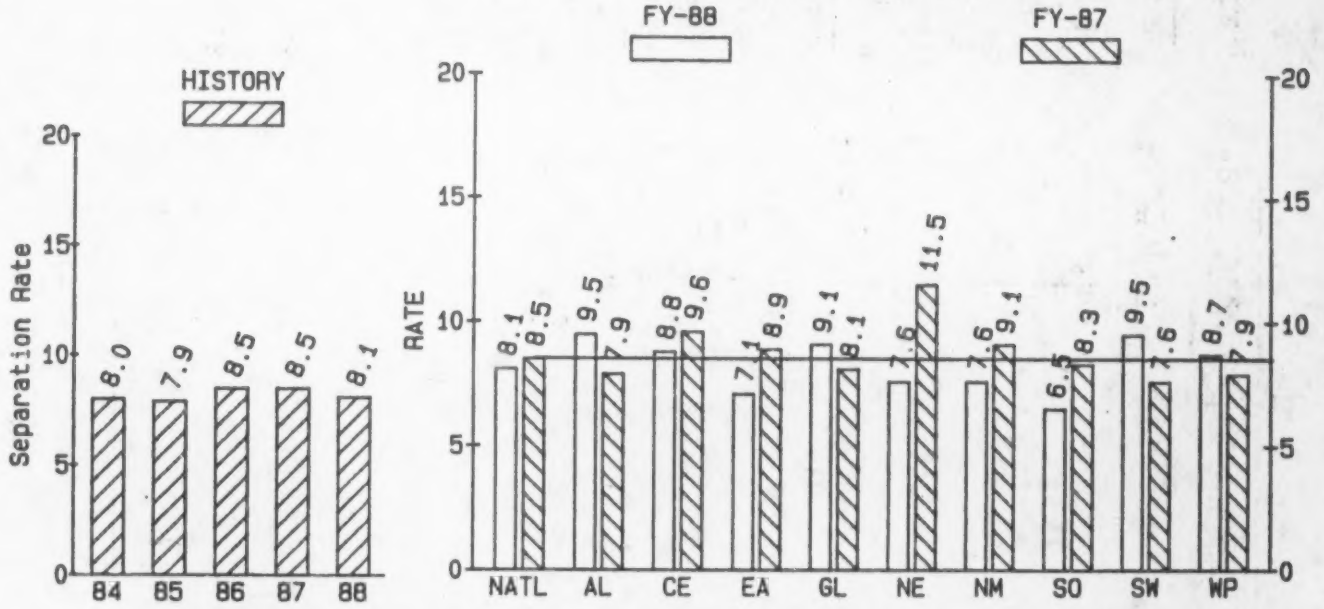
FY-88	NATL	AL	CE	EA	GL	NE	NM	SO	SW	WP
FTP SEPARATIONS	101	2	11	5	5	6	12	19	22	19
FTP EMPLOYEES	1781	60	165	161	204	103	285	251	320	232
% SEPARATED	5.7	3.3	6.7	3.1	2.5	5.8	4.2	7.6	6.9	8.2

FY-87										
FTP SEPARATIONS	83	2	6	12	4	12	11	11	10	15
FTP EMPLOYEES	1670	53	159	161	195	103	265	244	273	215
% SEPARATED	5.0	3.8	3.8	7.5	2.1	11.7	4.2	4.5	3.7	7.0

SEPARATION RATE

Air Traffic Controllers

Below line is better than Prior Year National Average



1984	1985	1986	1987
1668	1700	1841	1858
20831	21531	21634	21910
8.0	7.9	8.5	8.5

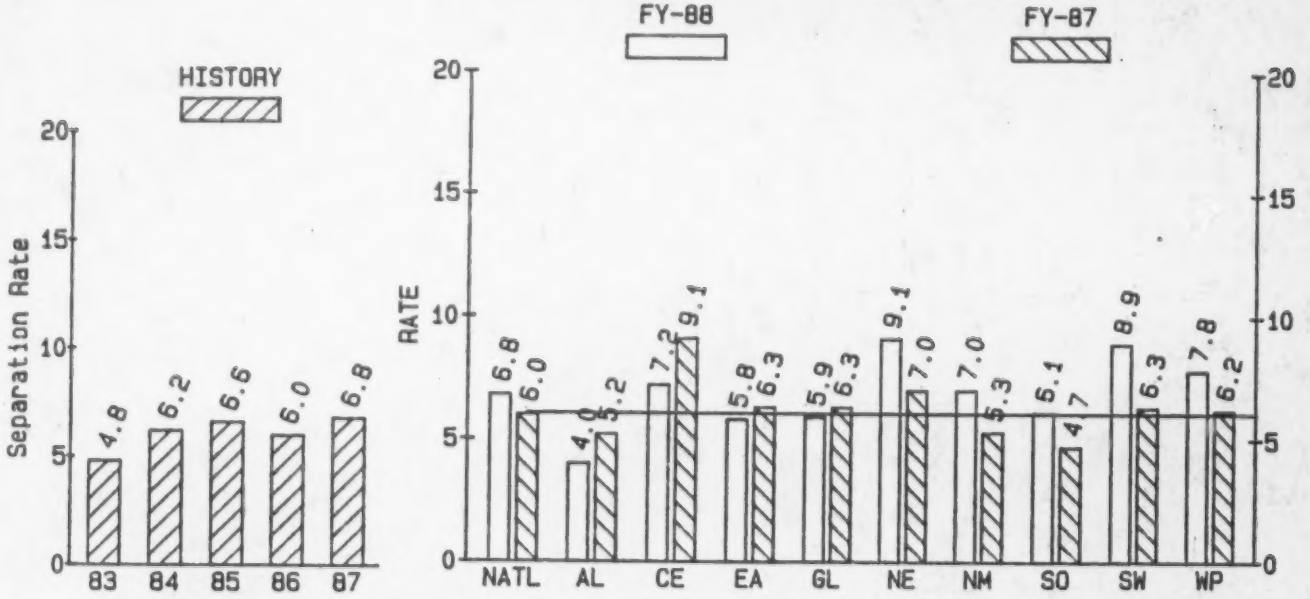
FY-88	NATL	AL	CE	EA	GL	NE	NM	SO	SW	WP
FTP SEPARATIONS	1828	52	109	216	373	81	161	293	290	253
FTP EMPLOYEES	22596	549	1245	3032	4108	1060	2107	4529	4529	2915
% SEPARATED	8.1	9.5	8.8	7.1	9.1	7.6	7.6	6.5	6.4	8.7

FY-87	NATL	AL	CE	EA	GL	NE	NM	SO	SW	WP
FTP SEPARATION	1858	42	114	266	320	110	191	369	220	226
FTP EMPLOYEES	21910	529	1190	2985	3970	960	2097	4431	2903	2845
% SEPARATED	8.5	7.9	9.6	8.9	8.1	11.5	9.1	8.3	7.6	7.9

SEPARATION RATE

Electronic Technicians

Below line is better than Prior Year National Average

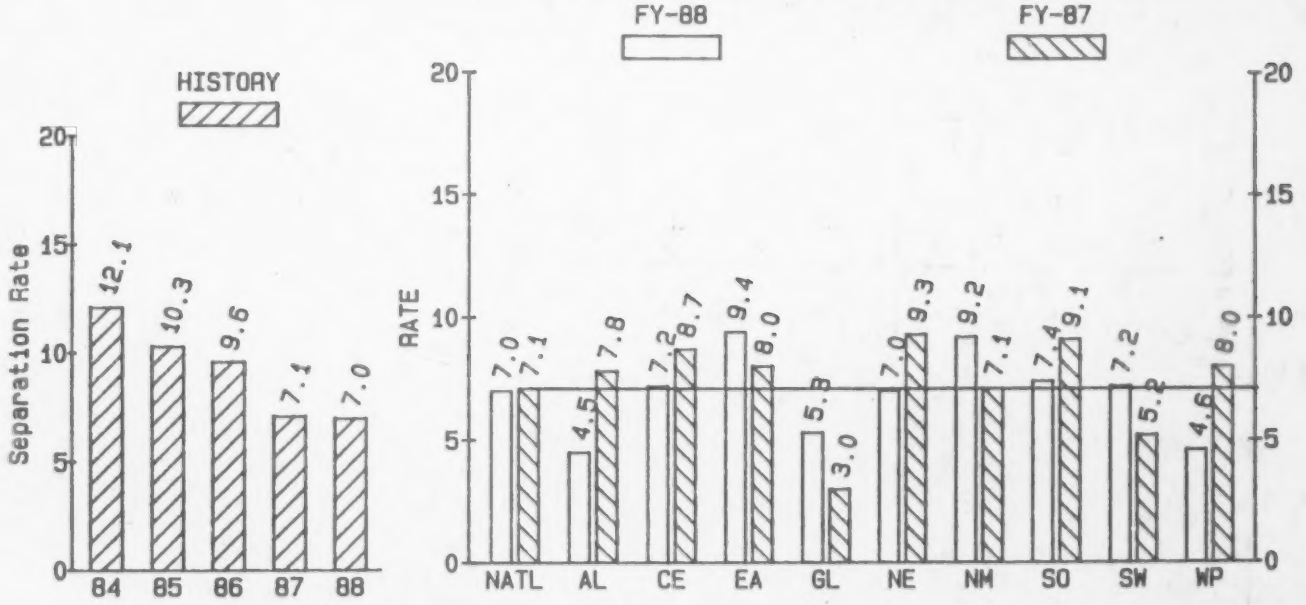


1984	1985	1986	1987	FY-88	NATL	AL	CE	EA	GL	NE	NM	SO	SW	WP
334	401	407	370	FTP SEPARATIONS	423	9	28	50	54	26	48	79	64	63
6901	6436	6206	6131	FTP EMPLOYEES	6198	227	389	868	911	285	685	1285	742	806
4.8	6.2	6.6	6.0	% SEPARATED	6.8	4.0	7.2	5.8	5.9	9.1	7.0	6.1	8.9	7.8
				FY-87										
				FTP SEPARATIONS	370	11	35	54	58	19	36	58	49	50
				FTP EMPLOYEES	6131	212	384	852	919	271	685	1228	773	807
				% SEPARATED	6.0	5.2	9.1	6.3	6.3	7.0	5.3	4.7	6.3	6.2

SEPARATION RATE

Flight Standards Inspectors

Below line is better than Prior Year National Average



1984	1985	1986	1987
198	175	173	143
1635	1707	1804	2005
12.1	10.3	9.6	7.1

FY-88	NATL	AL	CE	EA	GL	NE	NM	SO	SW	WP
FTP SEPARATIONS	150	3	13	23	15	7	26	26	21	16
FTP EMPLOYEES	2149	66	180	245	281	100	283	353	292	349
% SEPARATED	7.0	4.5	7.2	9.4	5.3	7.0	9.2	7.4	7.2	4.6

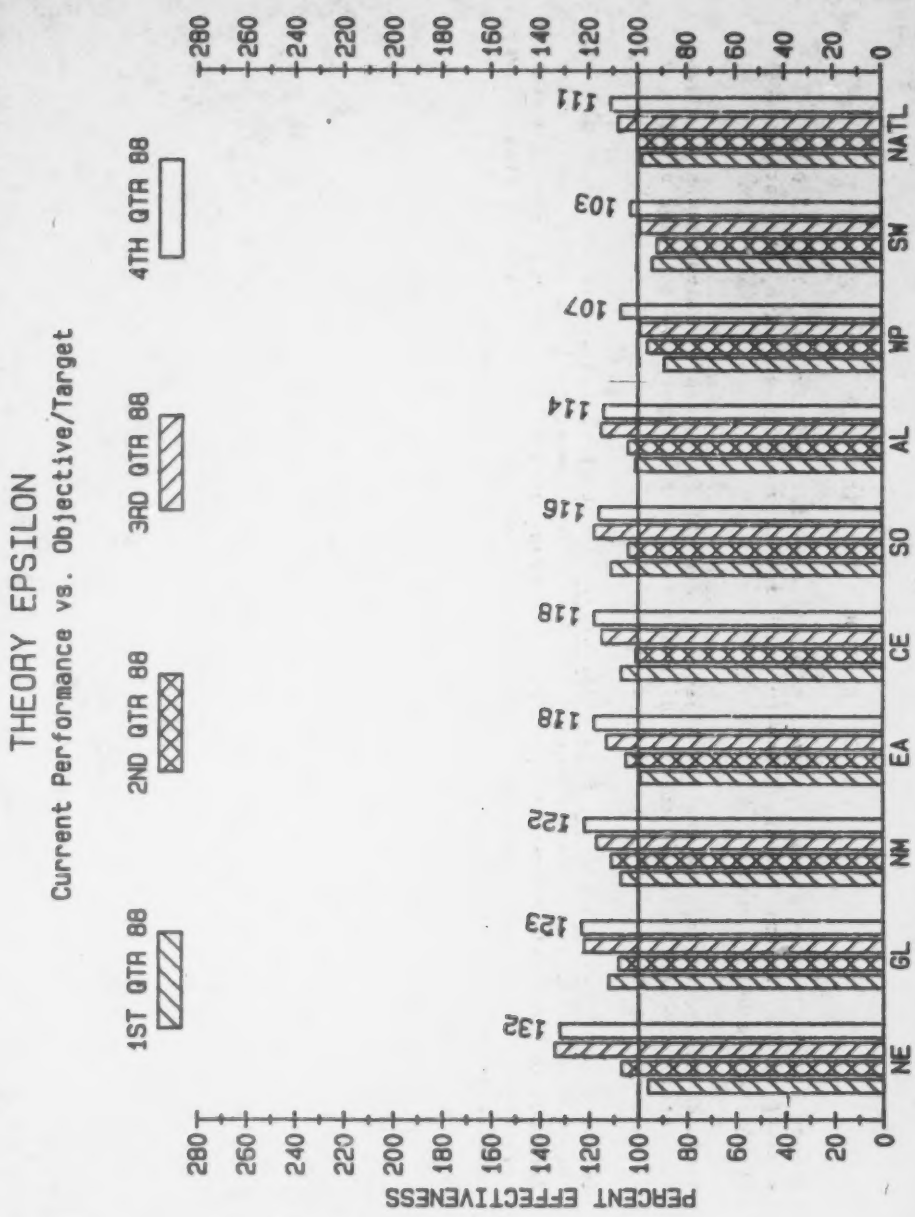
FY-87										
FTP SEPARATIONS	143	5	15	18	8	8	19	30	14	26
FTP EMPLOYEES	2005	64	173	225	268	86	268	330	267	324
% SEPARATED	7.1	7.8	8.7	8.0	3.0	9.3	7.1	9.1	5.2	8.0

THEORY EPSILON - Definitions

Theory Epsilon is the average percent effectiveness for each Region. This is done by summing up the percent effectiveness for each indicator and dividing by the total number of indicators being counted.

Included in theory epsilon are the Objectives and the Performance indicators only. Trend Indicators are not included, these indicators are for trend purposes only and should not be included in the regions overall performance.

In the Current Performance vs. Objective/Target 21 out of 42 indicators are counted in the chart. The indicators Percent Minority and Female Employment by job series, En Route and Terminal Operational Errors per Operations, Average Hours of Overtime - 22 Pacing Airports indicator, Average Hours Overtime per Employee period for Centers, Terminals, FSSs, Airway Facilities and Aviation Standard and the Trend indicators are excluded.


THEORY EPSILON
Current Performance vs. Objective/Target
1ST QTR 88
2ND QTR 88
3RD QTR 88
4TH QTR 88
PERCENT EFFECTIVENESS
0
20
40
60
80
100
120
140
160
180
200
220
240
260
280
NE
GL
NW
EA
CE
SO
AL
WP
SW
NATL
132
123
122
118
118
116
114
107
103
111

THEORY EPSILON - CURRENT PERFORMANCE VS. OBJECTIVE/TARGET

	AL	CE	EA	GL	NE	MM	SO	SW	WP	NATL FY-88
GENERAL AVIATION TOTAL ACCIDENTS	123	103	101	107	109	107	102	98	100	104
GENERAL AVIATION FATAL ACCIDENTS	80	157	101	127	126	88	123	89	93	103
GENERAL AVIATION PERFORMANCE INDEX	77	154	96	125	131	100	122	81	105	107
MINORITY REPRESENTATION (Current vs. Civilian Work Force)	69	105	83	85	103	97	74	60	76	82
FEMALE REPRESENTATION (Current vs. Civilian Work Force)	52	46	37	39	38	40	38	41	39	45
EN ROUTE OPERATIONAL ERRORS	200	117	131	111	149	138	106	105	148	120
TERMINAL OPERATIONAL ERRORS	200	150	91	76	65	132	194	92	109	109
AIR TRAFFIC DELAYS	Regional breakdown not available at this time.									131
CONTROLLER WORK FORCE	143	207	405	469	531	173	190	134	212	215
AIR TRAFFIC DEVELOPMENTAL ATTRITION RATE	71	79	130	69	115	108	122	67	76	87
AVERAGE HOURS OF OVERTIME PER GS-2152 ATC FIELD EMPLOYEES PER PAY PERIOD -- CENTERS	122	71	110	143	244	240	125	104	87	122
AVERAGE NUMBER OF OUTAGES INDEX SCORE -- TARS	131	136	126	124	126	123	129	130	123	127
AVERAGE NUMBER OF OUTAGES INDEX SCORE -- CRADS		139	141	134	135	140	139	139	132	138
AVERAGE NUMBER OF OUTAGES INDEX SCORE -- VORS	117	133	130	129	103	132	132	132	131	130
AVERAGE NUMBER OF OUTAGES INDEX SCORE -- LOCS	96	119	119	121	118	127	125	124	122	121
AVERAGE NUMBER OF OUTAGES INDEX SCORE -- GS	82	117	117	122	119	122	126	128	129	122
F & E PROJECT ACCOMPLISHMENT GOALS	100	113	100	100	92	100	100	113	100	102
AIRPORT INSPECTIONS PER AIRPORT EMPLOYEE	182	117	129	111	66	118	93	111	129	
PERCENT DECREASE OF GRANT PROJECTS 4 YEARS OLD OR OLDER	100	133	34	70	88	100	72	102	47	62
ATTENDEES AT ACCIDENT PREVENTION PROGRAM PER ACTIVE PILOT	121	96	106	107	70	145	111	99	100	104
EMPLOYEES PER SUPERVISOR BY ORGANIZATION	104	103	97	102	96	100	98	106	97	100
AVERAGE HOURS OF OVERTIME PER EMPLOYEE PAY PERIOD -- TOTAL	118	86	104	119	148	141	119	112	96	109
TOTAL EFFECTIVENESS	2288	2481	2488	2590	2772	2571	2440	2167	2251	2340
NUMBER OF INDICATORS	20	21	21	21	21	21	21	21	21	21
AVERAGE PERCENT EFFECTIVENESS	114	118	118	123	132	122	116	103	107	111

HISTORY/PURPOSE OF THE IMPACT '88 INITIATIVES:

Aircrew Performance - Given the rise in the number of pilot deviations and crew errors, the need for a new focus on pilot professionalism and vigilance in the cockpit has become evident. The progressive introduction of modern high-performance aircraft, coupled with a significant increase in the complexity of operating in an expanding, deregulated environment, has also highlighted the need for FAA to thoroughly examine crew training and cockpit procedures and to provide additional cockpit equipment which will enhance aircrew performance.

Airline Accountability - Economic deregulation of the aviation industry brought considerable change to commercial airlines and their environment. Major changes include new operating strategies, substantial growth, frequent carrier entry and exit from markets, numerous consolidations, and more intense economic and other competitive pressures. These changes, recent commercial aviation operational incidents, and FAA safety inspections programs have heightened concern for aviation safety.

Airport Development - Despite the pressing need for increased capacity, there is active consideration of building new major airports or significantly expanding existing ones in only a few areas of the country. State and local governments have the responsibility for deciding whether to add new airports or expand existing ones, and the FAA reacts by providing funding when requests are made and within funding limitations. Requests for Federal funds, and the FAA's responses, have been project-oriented or airport-oriented rather than national system-oriented. Even where states are active in state system planning, decisions are not usually based on national, system-wide capacity needs.

Airspace Capacity - The rights and use of the airspace are emerging as major issues as the skies around major metropolitan airports become saturated with growing volumes of traffic. The deregulation of the airline industry, combined with widespread use of hubbing, produced unprecedented growth in aviation that has severely strained the capacity of our national airspace system to deal with the increase in air traffic.

Advanced Technology - The modernization of civil aviation is currently not keeping pace with increased growth demands on our system. Encumbered by complex procurement procedures and scarce resources to dedicate to research and development, past efforts at revolutionizing the field of aviation have fallen short. Perhaps because scientists and engineers were not pushed to test aviation's technological frontiers, advancements here have been slow to materialize.

Aviation Awareness - In spite of aviation's excellent safety record, public confidence in the air transportation system has been shaken by media reports of near mid-air collisions, operational errors, inadequate airport security, and poor airline service. This has led to conjecture about declining safety margins. One of the problems in communicating the state of the air transportation system to the public is the lack of an indicating system for airline safety. Traditional indicators used for gauging the health of the National Airspace System (NAS) have been primarily accident-based measures such as the number of accidents per 100,000 flight hours or the number of fatalities per 100 million passenger miles. While it is important to track these "after the fact" statistics as the ultimate measure of system safety, there is also a requirement to develop indicators and parameters which are more sensitive to system changes than accidents or damage.

Air Transportation Security - Evaluations conducted by the Secretary's Safety Review Task Force and the GAO revealed the need for improvements in the preboard passenger screening system. The detection rate of FAA-approved test objects for all airports averaged 80 percent; however, the detection rates varied by airport from 34 to 99 percent. It became clear that certain initiatives were needed to improve the effectiveness and public confidence in the passenger screening system.

Agency Effectiveness - In order to achieve some of the challenges and opportunities of the Impact '88 program, the FAA needs to reinvest in safety commitments, reexamine our behavior, redouble our professionalism, and enhance agency effectiveness. In some areas, this means greater control over internal processes. Empowering FAA to better manage its own affairs is a central goal of Impact '88. In other areas, this means emphasizing human resource programs or improving key performance areas.

PROJECT	Initial Due Date	Revised Due Date	Completion Date
1. AIRCREW PERFORMANCE - AVR-1 (as of 9/30/88)			
A. HUMAN FACTORS			
Milestones:			
Met with Chief Pilots in Kansas City			8/87
First meeting of industry Steering Committee: ATA, FAA, ALPA, APA, FAA, NASA, and NTSB			9/87
Conduct Conference on FAA and academic cooperation in Human Factors Research	2/88		2/88
AVS team met with ICAO representatives			3/88
Informal Industry Human Factors Plan Review	3/88		3/88
AVS Working Group on CRM met	4/88		4/88 and 5/88
Met with University of North Dakota representative			8/23-24/88
NASA Workshop on Automation	3/88		
TSC Cockpit Checklist Study Initiated	9/88		
Publish CRM Advisory Circular	12/88		

Actions Planned:

- Examine crew training and cockpit procedures--standardizing cockpit procedures for 121 and 135 air carriers.

- Assess the impact of changing automation, mergers, and scheduling on the management of cockpit crew.

PROJECT	Initial Due Date	Revised Due Date	Completion Date
- Heighten pilot awareness through an evaluation of current training programs and immediately share state-of-the-art knowledge with the aviation community.			
- Accelerate research on human errors in the cockpit--use NTSB data, industry recommendations and other factors coming from human performance factors research.			
B. TRAINING			
Milestones:			
Historical review of FAA requirements relevant to pilot and instructor certification.			12/87
Completed draft Advisory Circular CRM			1/88
Propose mandatory CRM	8/88	1/89	
Begin top-to-bottom Aircrew Training Job task analysis and data collection	8/88		
Conduct technical studies to determine specific areas of 14 CFR which are deficient	10/88		
Draft of improved aircrew training standards	10/88		
Developed task analysis methodology and schedule to analyze broad pilot and instructor certification functions and related knowledge, skills, and abilities for Parts 61/141/143.	10/88	12/88	4/88
Conducted four public hearings related to Phase 1 of Parts 61/141/143.	7/88		7/88 & 8/88
Began conducting task analysis and analyzing broad pilot pilot and instructor certification functions and related knowledge, skills, and abilities for Parts 61/141/143.	8/88		
Began development of a Phase 1 NPRM that will implement implement Parts 61/141/143 pilot and instructor training and certification.	10/88		

PROJECT	Initial Due Date	Revised Due Date	Completion Date
Draft NPRM of Phase 1 scheduled to go to OST for approval	12/88		
Draft NPRM for Aviation maintenance technician schools	12/88		
Publish NPRM on Aviation Maintenance Technical schools	3/89		
Begin conducting public hearings related to Phase 2 of Parts 61/141/143	8/89		
Begin development of Phase 2 NPRM to implement Parts 61/141/143 pilot and instructor training and certification.	10/89		

Actions Planned:

Air Carrier Flight Crew Training Review (FAR 121 and 135)

- Develop Cockpit Resource Management Training Guidance & Regulation

- Assess the application of Job Task Analysis is dealing with the entire spectrum of those detailed functions required to perform aircrew duties. Determine the practicality of combining human factors concepts with JTA's to produce training standards, improve rulemaking, and improve cockpit and aircrew certification standards.
- Determine the need and develop new training standards and publish updated rulemaking when appropriate.

NOTE: The air carrier industry has specialized groups addressing issues related to flightcrew professionalism, the need for a high degree of vigilance and discipline in the cockpit, and the need to identify the best means of training air carrier flightcrews.

General Aviation Training Review (FAR 61/141/143)

- Analyze the entire spectrum of pilot and instructor training and certification to determine what areas FAA needs to emphasize and what training and testing are required for a pilot to function in the present and forecast environment.

PROJECT	Initial Due Date	Revised Due Date	Completion Date

- Revise and update Parts 61, 141, and 143 of the Federal Aviation Regulations. Maximum industry involvement will be needed in determining the functions that pilots and instructors are requested to perform.
- Publish updated FAR's.

Aviation Maintenance Technician Schools (14 CFR Part 147)

- Identify areas in CFR which require updating to reflect state-of-the art technology in aviation equipment and maintenance.
- Revise CFR to include state-of-the art aviation maintenance curriculum in line with recommendations from technical schools and associations and aviation industry groups.

C. WIND SHEAR

Milestones:

Resolved comments	1/88		1/88
Issue final rule	6/88	10/88	
Effective date	1/91		
Phased compliance	3/90	1/93	

Actions Planned:

Implement an airborne wind shear alert system that will warn aircrews of severe wind shear conditions. Publish a regulation that requires airborne equipment to be installed in certain airplanes to provide warning and escape guidance. Additionally, provide for the development of flight simulator training programs for Part 121 operators and ground training programs for Part 135 and Part 121 operators to include training in wind shear detection, avoidance, and escape procedures. An NPRM was published, and the comment period closed 9/28/87.

PROJECT	Initial Due Date	Revised Due Date	Completion Date
D. TCAS II			
Milestones:			
Comments on proposed rule closed			12/87
Completed Economic Analysis	5/88		7/88
AOA-1 released final draft rule			7/88
UAL Limited Implementation Program (LIP) completed			7/88
NWA received Supplemental Type Certificate for installation of TCAS II			9/88
OST/OMB review	10/88		
Issue final rule	10/88		
Actions Planned:			
The promulgation of airworthiness and operating rules for the installation and use of TCAS in large transport-type airplanes and certain turbine-powered smaller airplanes is well underway.			

2. AIRLINE ACCOUNTABILITY - AVR-1 (as of 9/30/88)

A. AIR CARRIER SELF-EVALUATION			
Milestones:			
Develop quarterly report requirements	2/88	5/88	
Contract to be signed to develop annual self-evaluation program			9/30/88
Request air carrier quarterly report, CEO Letter	4/88	10/88	
Distribute self-evaluation	12/88		
Air carrier Quarterly Reports to AOA-1	10/88	4/89	

PROJECT	Initial Due Date	Revised Due Date	Completion Date

Actions Planned:

The agency is developing a "how to" self-inspection manual to assist airlines in identifying and correcting problems. Each quarter, and on an annual basis, airlines will report on how well they are complying with the obligations under their operating certificates. In addition, FAA will establish another tool for FAA to work with our user community. This program will feature a "contract" between, for example, an air carrier and the FAA whereby the carrier might identify an area of concern or deficiency and commit to fix that deficiency by some date-certain. This tool should return a certain element of cooperation and partnership between the FAA and its airspace users.

B. HELICOPTER EMERGENCY SERVICES (HEMES)

Milestones:

Publish an Advisory Circular for public comment	3/88	4/88	4/88
Publish a final Advisory Circular	8/88	10/88	

Actions Planned:

FAA has determined that an Advisory Circular covering all facets of HEMES operations would be the most effective and appropriate method to provide the guidance necessary to improve HEMES safety.

C. INSPECTION PROGRAM FOR PRODUCTION APPROVAL HOLDERS (OPERATION SNAPSHOT)

Milestones:

5 Facilities 1st Quarter FY-88		12/87
31 Facilities 2nd Quarter FY-88	3/88	3/88
21 Facilities 3rd Quarter FY-88	6/88	6/88

PROJECT	Initial Due Date	Revised Due Date	Completion Date
19 Facilities 4th Quarter FY-88	9/88		9/88
9 Facilities 1st Quarter FY-89	12/88		
4 Facilities 2nd Quarter FY-89	3/89		
89 inspections to be completed	3/89	1/89	

Actions Planned:

The FAA has initiated national safety inspections of aircraft manufacturing facilities (both foreign and domestic). A total of 160 inspections will be conducted. Forty Production Approval Holders and 120 of their suppliers are to be inspected by the end of this 24-month program. The result of this inspection effort will be assessed to determine if:

- FAA production approval holders are fulfilling their responsibility under the Federal Aviation Regulations (FAR);

- FAA production approval and surveillance methods are adequate/effective in today's environment.

- FAR/guidance material needs to be amended or revised; and

- Significant trends are present or emerging which may impact safety and require further study/investigation.

3. AIRPORT DEVELOPMENT

A. CAPACITY ACTION PLAN - ARP-1 (as of 5/31/88)

Milestones:

Develop action plan	12/87		12/87
Create staff to implement plan	5/88		
Develop Public education campaign	5/88		

PROJECT	Initial Due Date	Revised Due Date	Completion Date
Develop funding proposal	5/88		
Begin discussion with DOD	1/88		1/88

Actions Planned:

An action plan has been developed to promote airport capacity development efforts and increase the ability of the national airport system to accommodate predicted user demands. Major elements of the action plan include: target areas with the most critical need for additional airport capacity; implement a public education campaign to promote expansion and modernization of existing airports and development of new airports; develop a legislative funding proposal to assist airport sponsors in acquiring land; explore other incentives to airport development; design airspace changes in parallel with airport capacity enhancements; accelerate planning and development of relievers, vertiports, and tilt-rotorcraft; establish a roundtable of transportation, environmental, and military agencies to coordinate actions that can have a positive impact on airport development; explore potential use of military airport facilities; and determine the design characteristics needed for future airports to accommodate advanced aircraft technologies.

In addition, several initiatives are underway to improve the airport planning process; maximize use of grant assistance to achieve system capacity improvements; and improve procedures and policies for airport noise mitigation programs.

B. AIRCRAFT NOISE/AIRPORT ACCESS POLICY - API-1 (as of 8/4/88)

Milestones:

Met with the Secretary to discuss the need for an OST/FAA policy on this issue.	2/88		3/88
Final policy statement and/or proposed legislation to OST	4/88	TBD	

PROJECT	Initial Due Date	Revised Due Date	Completion Date

Actions Planned:

FAA has developed a recommendation on actions to assist airport proprietors and airline operators in their efforts to reduce the noise generated by aircraft operations, maintain adequate airport capacity for the Nation's air transportation system, and develop effective noise compatibility programs.

4. AIRSPACE CAPACITY

A. REGULATORY ACTIONS - AAT-1 (as of 9/29/88)

1. New Terminal Control Areas (TCA)

Milestones:

	Initial Airspace Mtgs Held*	NPRM Published	Comments Close	Final Rule Effective
Phoenix, Arizona	6/30/88 & 7/28/88	11/03/88	12/17/88	5/ 4/89**
Salt Lake City, Utah	10/1-6/88	5/ 1/89	6/15/89	11/16/89
Houston Hobby, Texas	7/20-21/88	12/15/88	2/ 1/89	7/28/89
Charlotte, North Carolina	7/12-13/88	1/15/89	3/ 1/89	8/24/89
Baltimore, Maryland	12/05/88 & 12/12/88	2/ 8/89	3/25/89	8/24/89

*Follow-on airspace meetings will be held after the NRPM is published and before the comment period closes.

**Anticipate revised date to 7/1/89 to coincide with charting for the Mode C Transponder requirement within a 30-mile radius of a TCA primary airport.

PROJECT	Initial Due Date	Revised Due Date	Completion Date

	Initial Airspace Mtgs Held*	NPRM Published	Comments Close	Final Rule Effective
Dulles, Virginia	12/07/88	2/ 8/89	3/25/89	8/24/89
Orlando, Florida	8/16-17/88	3/ 6/89	4/20/89	9/21/89
Tampa, Florida	8/23-25/88	3/ 6/89	4/20/89	9/21/89
Memphis, Tennessee	10/04/88	4/ 1/89	5/15/89	10/19/89

Actions Planned:

Staff Studies are being or have been prepared for all of the proposed sites. Implementation will proceed in accordance with rulemaking requirements as the necessary information is received.

2. Expand Mode C transponder requirements in the Vicinity of TCA's, Increase the Pilot and Equipment Requirements in TCA's and Establish a Single-Class TCA.

Milestones:

NPRM written/coord.	1/87		2/87
Regulatory Eval.	1/87		2/87
NPRM to ATO-1	1/87		2/87
OST/OMB review complete	3/87	5/87	6/87
NPRM in Federal Register	3/87	6/87	6/87
Public Comment period closes	6/87	9/87	9/87
Final Rule to AOA-1	8/87	6/88	7/88
Final Rule to OST	9/87	6/88	7/88
Final Rule in Federal Register	9/87	10/88	
Final Rule Compliance Date	12/87	1/89	

PROJECT	Initial Due Date	Revised Due Date	Completion Date

Actions Planned:

To establish a single-class TCA and revise associated pilot and equipment requirements for flight within a TCA. It would also expand the pilot and equipment requirements to operate in and near TCA's as follows: (a) the pilot-in-command of a civil aircraft operating within a TCA would be required to hold at least a private pilot certificate, with a limited exception for student pilots receiving certain documented training (i.e., student pilots may not operate at certain primary airports and are required to obtain specific training and an instructor's endorsement of a student's logbook for all other TCA operations); and (b) helicopters would be required to operate under the same equipment requirements as other aircraft.

3. Expand Mode C Transponder Requirements in Terminal Radar Airspace and other Controlled Airspace

Milestones:

NPRM to OST	5/88		1/88
Publish NPRM	6/88	3/88	2/88
Comment Period Close	3/88	5/88	5/88
Final Rule to OST	5/88	5/88	5/88
Final Rule Published	6/88	6/88	6/88
Final Rule Eff in TCA's/Enroute	7/89		
Final Rule Eff in ARSA's/Other	12/90		

Actions Planned:

Implementation will be in two phases. Phase I will require a transponder with Mode C at and above 10,000 feet MSL and in the vicinity of TCA primary airports. Phase II will implement a transponder with Mode C in the airspace in the vicinity of ARSA primary airports. A transponder with Mode C requirement at other airports for which a TCA or ARSA has not been designated is being adopted. Initially, only Logan International Airport, Billings, MT; and Hector International Airport, Fargo, N.D., will be designated; other such airports will be considered for a similar requirement on a case-by-case basis under separate actions.

PROJECT	Initial Due Date	Revised Due Date	Completion Date

B. **AIRCRAFT SITUATION DISPLAY (ASD)** - AAT-1 (as of 9/29/88)

Milestones:

First ASD prototype delivered to ATO	3/87		3/87
ASD successfully evaluated and placed in CFCF	5/87		5/87
DPA for $10M approved by DOT/GSA	9/87		9/87
Installation of ASD at Los Angeles ARTCC	2/88		2/88
Deliver Monitor-Alert function to ATO	9/88		5/88
Full installation of ASD in CONUS ARTCC's	11/88		
Evaluation of Monitor-Alert and initial operational use in CFCF	12/88		6/88

Actions Planned:

The ASD was developed by the FAA's Engineering Services (AES). A prototype was built by AES and Evaluated by Air Traffic Operations (ATO) in conjunction with a team of field personnel. Due to the success of that evaluation, ASD was installed and is currently being used in a limited capacity by operational personnel in the CFCF. Due to the enormous potential demonstrated by ASD, follow-on capabilities that will reside within the ASD are being developed by AES with support from ATO. Because of the runway closure at Los Angeles International Airport in February 1988, we have installed an ASD display at the Los Angeles Air Route Traffic Control Center. Training of traffic management specialists at that location was completed on February 8, 1988, and for all other users on February 26, 1988.

C. **EXPANDED NATIONAL AIRSPACE PERFORMANCE REPORTING SYSTEM** - AAT-1 (Project Completed)

Milestones:

Contract Award for Field Computers		Completed
Obtaining FY-87 Funds for Replacement of NAPRS Field Computer Equipment	9/87	Completed

PROJECT	Initial Due Date	Revised Due Date	Completion Date
Replacement of NAS Analysis Staff NAPRS computer Equipment	1/88		1/88
Obtaining Contract Support Staffing for NAS Analysis Branch	2/88	4/88	4/88
NAPRS Operational Cut-Over to New Computer Telecommunications Network	5/88		5/88
Obtaining FY-88 Funds for further NAPRS Expansion	10/88		6/88

Actions Planned:

To further enhance its analysis capabilities and to assist Air Traffic in its accountability for NAS performance nationwide, NAPRS reportable airports must be expanded beyond its present 55 (includes all airports with 2,000,000 passenger enplanements a year). Ideally, the ultimate size of the reporting system should be about 300 facilities which would include all terminal radar facilities and the automated flight service stations. Also, to enable its analysts to devote more time to system performance analyses, permanent contract support is planned for maintaining the computer telecommunications network and generating automated reports. Lastly, NAPRS reportable information will be expanded to include reports on local ATC performance in terms of hourly operations (i.e., Performance Measurement System Summary Reports), daily staffing, and any other information that may be critical to an indepth analysis of system performance.

D. AIRSPACE UTILIZATION PLANS - AAT-1 (as of 9/29/88)

Milestones:

AWP established West Coast Plan (WCP) Program Office	10/87		10/87
West Coast Plan Steering Committee Final Report	11/87		11/87
AWP briefs AOA-1 on West Coasts Plan	2/88		2/88
East Coast Plan Implemented	3/88		3/88
Initial organizational meeting to draft Mid-Continent Plan	3/88		3/88
AWP to brief military on LABs issues	4/88		4/88
Brief AAT-1 and users on MCP meeting	4/88		4/88

PROJECT	Initial Due Date	Revised Due Date	Completion Date
Identify regional/national projects to be included in National Airspace Capacity Plan	4/88	4/88	4/88
Mid-Continent Plan finalized	6/88	9/88	9/88
STAR implementation	12/88		

Actions Planned:

A Mid-Continent Plan (MCP) organizational meeting was held. This group will consist of representatives from each region associated with the MCP as well as headquarters personnel. The identified problem areas, activities, and plans towards the production of a finalized MCP (Action Plan) by June 30, 1988. Implementation of this final plan will commence immediately. Consolidation of efforts between the MCP, East Coast, and West Coast Plans will begin when the MCP is completed. These plans in addition to others such as Los Angeles Basin Study (LABS) and Southern California Terminal Realignment (STAR) will be incorporated into a National Airspace Master Plan.

E. OPERATIONAL ERROR REDUCTION INITIATIVES - AAT-1 (as of 9/29/88)

Milestones:

Operational Error Symposium Held	10/87		10/87
Operational Error Accountability:			
Initial draft prepared	3/88		3/88
Second draft prepared field/union/HQ group	5/88	10/88	Deleted
Second draft prepared for internal coordination (AAT/AHR/ALR/Regions)	10/88		
Coordination completed	7/88	11/88	
Issued in final	9/88	12/88	

PROJECT	Initial Due Date	Revised Due Date	Completion Date
Use Appropriate Local Frequency:			
Change proposal comments due	4/88		4/88
Analyze results, make final determination	5/88		5/88
Letter to AES-500 request Frequency Mgmt Changes	6/88		6/88
Letter to AAS-300 request Training Program	6/88		6/88
Circulate final HB change to AT Divisions	7/88		7/88
Implement Freq. Mgmt Change	(awaiting AES response)		
Implement Training Program	(awaiting AAS response)		
Implement HB Change	(awaiting AES/AAS responses)		
Revise Handbook Regarding Radar Transfer:			
Place Appendix C elsewhere, and remove it from FAAH 7110.65	10/88		
Improve Operational Error Report:			
Draft changes in Order 7210.41B, Appendix 2, on the revised preliminary error reporting form	4/88	10/88	
Collect comments on changes	5/88	12/88	
Improve Visual Scanning:			
Form a task group	6/87		6/87
Required changes in evaluation lists to emphasize scanning performance	7/87		7/87
Develop scanning research program at FAA Technical Center	12/87		12/87
Develop video for training in radar and airport surface scanning	1/89		
Collect data on runway scanning behavior at tower cabs	4/89		
Memory Training and Memory Aids in ATC Operations:			
Form a task group	6/87		6/87

PROJECT	Initial Due Date	Revised Due Date	Completion Date
GENOT to require facility managers to develop/review memory aids and procedures for runway operations	9/87	10/87	10/87
Develop training plan for controllers in memory & listening	1/88		2/88
Develop memory research program at FAA Tenchnical Center	2/88	8/88	4/88
Revise videotaped training courses in memory & listening	3/88	10/88	

Actions Planned:

Host symposia of controllers who have had operational errors. Study and develop aids and training to help controllers overcome error-causing lapses in memory and in visual scanning. Study the advisability of requiring that all vehicles or aircraft operating on a runway (for purposes other than crossing) be on the appropriate local control frequency. Determine the best way to assign accountability for operational errors. Revise FAR Part 139 to place additional requirements on airports regarding runway and taxiway signs and markings. Revise operational error reporting forms to include more pertinent information. Revise handbook to improve guidance to controllers regarding radar transfers.

F. NAS PLAN INTERIM SUPPORT PLAN - ADL-1 (as of 8/31/88)

Milestones:

Team convened study	7/87		7/87
Initial Alternatives identified	8/87		8/87
Recommendations briefed to ADL/AAT	10/87		10/87
FY 1989 Budget Items submitted	11/87		11/87
Briefing to AOA-1 on Total Program	3/88		3/88
Brief OST on Total Program	3/88	4/88	4/88

PROJECT	Initial Due Date	Revised Due Date	Completion Date

Actions Planned:

The Interim Support Plan is comprised of a series of procurements of system hardware and software to improve capacity, solve reliability and support problems, and meet new requirements prior to NAS Plan implementation. The Plan is to modify existing contracts and use sole source or off-the-shelf procurements to meet the urgent nature of requirements.

Procurements will be initiated for FY 1989-90-91 for:
1. Replacement of ARTS solid state memories
2. ARTS software modification
3. ARTS Keyboard/trackballs/ancillary equipment
4. UPS for ARTS II
5. Establishment of radar facilities
6. New ARTS displays
7. Replace GRN-27 ILS
8. Replace vacuum tube radar components
9. Replace obsolete weather components

G. EN ROUTE CONFLICT ALERT IFR/VFR MODE C INTRUDER (MCI) - AAT-1 (as of 9/29/88)

Milestones:

Install MCI at Fort Worth ARTCC	6/86		6/86
Start national implementation of MCI function	6/88		6/88
Completion of national implementation of MCI function	9/88	10/88	

Actions Planned:

The FAA developed the MCI for the En Route ATC System and has it installed at the Fort Worth Center in the 9020 computer. This system has been operational in a test status since

PROJECT	Initial Due Date	Revised Due Date	Completion Date

June 21, 1986. Efforts are currently underway for the development of the software to be included in the new Host Computer System (HCS) at Fort Worth, Texas. Once the system has been keysited at Fort Worth, it will be distributed to the other centers for inclusion in their HCS, as appropriate. The last system should be operational in September 1988.

H. ENHANCED TERMINAL CONFLICT ALERT (ETCA)

Milestones:

Installation of ETCA function at NYT	6/86		6/86
Deliver ARTS IIIA, A3.03 program to IAH	9/87		9/87
Houston IAH ORD	11/87		11/87
Start national distribution of A3.03 program	9/87		9/87
Last site ORD on A3.03 program	9/88	12/88	

Actions Planned:

The software modification was developed by SPERRY, not UNISYS, and delivered to the FAA Technical Center in mid-1985. Implementation began in mid-1986 at the New York TRACON (NYT) utilizing the A5.05 Program. The integration of the modification into the ARTS IIIA, A3.03 version, was delayed because of the need to improve the A3.02 version. A3.03 with Enhanced Terminal Conflict Alert, was delivered to Houston Intercontinental (IAH), Dual Key Site, on September 16, 1987. National distribution has been implemented to remaining eligible sites. The enhanced Terminal Conflict Alert function will be operational at 65% of the facilities by September 30, 1988. As of July 11, 1988, 23 sites are operational on A3.03.

PROJECT	Initial Due Date	Revised Due Date	Completion Date

I. **NATIONAL AIRSPACE SYSTEM PERFORMANCE ANALYSIS CAPABILITY (NASPAC)** - ADM-1 (as of 7/29/88)

Milestones:

Phase I prototype models demonstration	2/88		2/88
NASPAC Models Enhancement Plan	4/88		4/88
Brief on Initial Model & Analysis Results	5/88		5/88
Report of initial models and analysis	7/88		
Initial Phase II models demonstration	9/88		
Report of Phase II models and analysis	3/89		
NASPAC Enhancement Plan Update	7/89		

Actions Planned:

Development of an analytical capability to answer questions about the effects on NAS performance of changes in FAA standards, procedures, airport capacity, or airline scheduling; to identify the limiting factors in NAS performance; and to provide possible solutions and show their impact on system performance. Initially, two models are being developed in two phases; a simulation model, and a queuing model. Phase I is an initial capability demonstration, and phase II is a more detailed, functional capability. Validation of results and review of the models' initial performance will guide follow-up model revision and simulation development.

5. ADVANCED TECHNOLOGY

A. **ACCELERATE TCAS III DEVELOPMENT** - AND-1 (as of 8/31/88)

Milestones:

Complete SDV Contract modification	2/88	4/88	4/88
Complete hardware and software redesign	5/88	8/88	

PROJECT	Initial Due Date	Revised Due Date	Completion Date
Deliver two (2) preproduction units to FAA	10/88	12/88	
Complete flight test program at FAA Tech Center	12/88	2/89	

Action Planned:

Three tasks have been defined for incorporation into the SDV contract as follows:

Task 1 - Redesign hardware and software to provide enhanced bearing measurement capability.

Task 2 - Perform factory testing of the two (2) TCAS II preproduction units to ensure readiness for flight testing.

Task 3 - Support installation in the FAA-B727 and flight test program at the FAA Technical Center.

B. AUTOMATIC DEPENDENT SURVEILLANCE (ADS)

Milestones:

Project approach endorsed by ADL-2	9/87		9/87
Initiate development of specification	10/87		10/87
PR to ALC for 8(a) support contract	10/87		10/87
Specification for step 1 mods completed	12/87		12/87
FAA RFP to 8(a) contractor	1/88		1/88
Contract award to 8(a) contractor	4/88		3/88
Contract award for step 1 mods	7/88	11/88	
Step 1 mods operating on Tech Center ODAPS (System Development Facility)	5/89	11/89	
Validation of Step 1 mods on Tech Center ODAPS	9/89	2/90	
Step 1 mods integrated with operational program on Tech Center ODAPS	12/89	5/90	
Step 1 mods operational at Oakland ATC	3/90	9/90	

PROJECT	Initial Due Date	Revised Due Date	Completion Date

Actions Planned:

The program will be developed in incremental steps with the first step being navigation by automatically reporting aircraft position to the controllers via a satellite digital communications system blunder detection. Additional steps will add other features, such as two-way digital satellite communications between the aircraft and ground, conflict detection, and conflict resolution, all leading to a safe and more efficient use of the airspace. The first application of ADS will be in U.S.-controlled oceanic airspace.

C. ACCELERATE MODE S DATA LINK APPLICATIONS DEVELOPMENT.

Milestones:

Initial Weather Applications Operational	10/90	11/90
Initial ATC Applications	7/91	
ATIS Tower Workstation Application	12/91	3/93

Actions Planned:

An accelerated development plan for data link applications has been drafted and is under review in ADL. Salient features of the plan include:

- Coordination with AAT of specific high profile data link applications and resources required to assure their early implementation.

- A cooperative FAA/Industry program to develop the avionics required to support the accelerated data link applications.

PROJECT	Initial Due Date	Revised Due Date	Completion Date
D. GLOBAL POSITIONING SYSTEM (GPS) - ADM-1 (as of 7/29/88)			
Milestones:			
Request RTCA to establish civil aviation requirements for GPS	4/85		4/85
RTCA report on GPS	12/89		
Complete GPS integrity monitor spec.	4/90		
RFP for integrity sys (satellite portion)	11/90		
RFP for integrity monitors (ground portion)	11/90		
Contract awards (satellite and ground portions)	8/91		
First Monitor ORD	8/93		
Last Monitor ORD	2794		
GPS Sole Means Civil Aviation System	1/95		
Actions Planned:			
The FAA plans to be in a position to approve the use of GPS as a supplemental navigation system as soon as the DOD approves it for operation (about 1991). As the issues of redundant coverage and integrity are resolved, the FAA may approve GPS as a sole means navigation system. Redundant coverage is expected to be resolved if the GPS satellite constellation is increased to 24 satellites. The integrity issue, which has to be resolved for nonprecision approaches, will be solved by use of an FAA monitor and alerting system.			
E. DEVELOP AND PUBLICIZE AGENCY PLANS FOR ATC IN THE 2020 TIME FRAME			
Milestones:			
Provide resources for activity	1/88		1/88
ADM-3 Draft design to Administrator (year 2020 ATC system)	6/88		

PROJECT	Initial Due Date	Revised Due Date	Completion Date
Conduct conference/workshop (Dr. Robert Machol and Steve Rothschild)	9/88		

Actions Planned:

FY-88: Community conference and workshop on the 21st Century ATC system covering the challenges (requirements) and the opportunities for meeting these challenges. Workshop to address how better to focus the R,E&D Plan on the activities required to get us from here to there.

Long Term: Maintain an up-to-date, comprehensive vision of where we expect to be in 25 years. The vision would be a comprehensive, coherent view developed as a consensus of the community.

F. APPLY EXPERT SYSTEMS TO ATC PROBLEMS - ADM-1 (as of 7/29/88)

Milestones:

Demonstrations model for expert systems	4/87		4/87
Demonstrates CRTA prototype	8/87		8/87
Install CRTA prototype (Logan for evaluation)	5/88	8/86	
Develop Automated Demand Resolution function	9/89		

Actions Planned:

In the area of controller radar training, a research prototype is being developed that will be used to evaluate the viability of utilizing expert system technology as an "expert monitor" for students exercising radar training simulations. This would allow the instructor to tailor the training program needs of the individual classes and to increase the size of those classes. The initial work will focus on terminal ATC radar training to be followed by an extension of the techniques to the en route environment.

PROJECT	Initial Due Date	Revised Due Date	Completion Date

In the area of flow management, work is beginning on the development of automation capabilities that will generate alternative flow strategies for national flow managers. To enhance the sensitivity of those alternative strategies to actual, real-time conditions, research into an expert system application will be included in that work.

6. AVIATION AWARENESS

A. SAFETY INDICATORS PROGRAM - ASF-1 (as of 9/30/88)

Milestones:

Phase I - ATC System Indicators

Award Contract	2/88	5/88	5/88
ATC Safety Indicator System Concept Report	7/88	11/88	
Implementation of prototype ATC indicator system plan	9/88	12/88	
Initial prototype system operational	12/88	6/89	

Phase II - Flight Operations Safety Indicators

Flight Operations Safety Indicator System Concept Report	3/89	9/89	
Prototype indicator system implementation plan	6/89	12/89	

Actions Planned:

A computerized safety measurement methodology, developed in two phases, which will permit the FAA to continually monitor the condition of the National Airspace System (NAS) and focus resources more efficiently--

-Phase I-Air Traffic System Safety Indicators
-Phase II-Flight Operations Safety Indicators

PROJECT	Initial Due Date	Revised Due Date	Completion Date

B. **PUBLIC AWARENESS** - APA-1 (as of 7/29/88)

Milestones:

People: Positions to be advertised by April 1988, and selections expected by June 1988.

Equipment: Purchase requests to be issued by April and equipment deliveries to be made within 90 days after approval.

Programs: All programs are scheduled for completion during FY 1988. Specific target dates for various initiatives are included in Impact '88 plan or are available from the program managers.

Actions Planned:

This "get well" action plan is designed to beef up public affairs resources to carry out these initiatives.

People: Created are 11 new positions in FAA headquarters and 12 new positions in the FAA regions and centers, in addition to upgrading Public Affairs Officer positions across the board. Included are public affairs specialists to help handle the enormous increase in news media activity and aviation education specialists to deal with community outreach and public awareness activities. Included among the new hires at FAA headquarters would be a staff of visual information/production specialists to meet the internal/external video communications needs, including the staffing of a satellite communications studio linked with the regions/centers and major facilities.

Equipment: Major expenditures include purchase of computers and appropriate telecommunications equipment to link FAA headquarters and the regions/centers together into a responsive, coordinated information network. Also included are desktop publishers to bring FAA internal publications up to minimum publishing standards and to upgrade/update external publications.

PROJECT	Initial Due Date	Revised Due Date	Completion Date

Programs: Included is a revitalized Local Coordinator program, which would provide speakers to community organizations throughout the country. Also included is a detailed plan designed to redefine the activity base of the aviation education program with increased emphasis on partnerships with the educational community and aviation industry. A key ingredient is the establishment of education specialist positions in the regions/centers. We are also developing a system of aviation education resource centers nationally to provide appropriate materials, programs, and other information to educators and the general public.

C. AVIATION SECURITY PUBLIC AWARENESS - AVS-1 (as of 9/30/88)

Milestones:

-Director of Civil Aviation Security has appeared on several TV interviews and has given interviews to newspaper and magazine reporters.
-Testified before the House Judiciary Committee Subcommittee on Crime.
-Completed two films, A Matter of Security and American Airports/Flying with Firearms.
-Completed two public service announcements; one with Louis Gossett, Jr., and the other with Patrick MacNee.
-ACS staff quoted extensively in article within DOD publication. Feature article "Traveling with Computers and Disks" was published in Office Automation Bulletin #19, July 1988.
-ACS staff presented "Explosive Detection Reserach & Development to Institute of Nuclear Material Managers, Las Vegas, Nevada, July 1988.
-Completed an FAA-funded, joint ATA/AOCI/AAAE-produced 5-part video on Airport Security.

Actions Planned:

An increased public presence by agency representatives speaking on security issues will lead to increased public awareness of the magnitude of the FAA's security program. Public information on the high tech solutions needs to be positive. Information covering new airport testing and deployment systems should be explained.

PROJECT	Initial Due Date	Revised Due Date	Completion Date

7. AIR TRANSPORTATION SECURITY

A. PART 129 PROGRAM FOR FOREIGN AIR CARRIERS - AVS-1 (Project Completed)

Milestones:

Issue a Final NPRM	Spring/88	Summer/88	9/88 ..

Actions Planned:

The FAA is proposing to amend Part 129 of the FAR to require foreign air carriers operating to or from the U.S. to submit a written security program to the FAA for acceptance by the Administrator.

B. INTERNATIONAL CONFERENCE (as of 9/30/88)

Milestones:

Invite key note speakers	1/88	1/88
Identify panels and chairmen	4/88	4/88
Send out formal invitations	5/88	5/88
Conduct conference	10/88	

Actions Planned:

Host the Fifth International Aviation Security Conference. The conference agenda will reflect the civil aviation security concerns of participating countries and provide a forum for participants to present their views. The conference fosters international cooperation in civil aviation security.

PROJECT	Initial Due Date	Revised Due Date	Completion Date
C. **PASSENGER SCREENING SYSTEM** - AVS-1 (as of 9/30/88)			
Milestones:			
Completed Human Factors Study on Passenger Screening	2/88		2/88
Completed Testing and Validation Explosives Standards	2/88		2/88
$10,000 Civil Penalty Instituted	3/88		4/88
Continuing study on the hiring, testing, and training process which affects the passenger screening system	3/88		3/88
Field Test Explosives Screening System for Passengers (Hardware to airports mid-August)	6/88	10/88	
Actions Planned:			
The FAA is studying the effects of various human factors on the effectiveness of passenger screening including higher pay and incentive award programs for screeners. It is also developing technology to improve detection rates. In addition, the FAA has a program to increase public awareness of the magnitude and effectiveness of the overall security system.			
D. **SECURITY INSPECTION PROGRAM**			
Milestones:			
Miami International Airport inspection	1/88		1/88
Los Angeles International inspection	2/88		2/88
Dallas/Ft. Worth inspection	3/88		3/88
Dulles International inspection	3/88		3/88
Hartsfield International inspection	4/88		4/88
O'Hare International inspection	4/88		4/88
Washington National inspection	5/88		5/88

PROJECT	Initial Due Date	Revised Due Date	Completion Date
San Francisco International inspection	5/88		5/88
Detroit Internation inspection	6/88		6/88
Denver Stapleton International inspection	6/88		6/88
Detroit International	6/88		6/88
Houston Intercontinental	7/88		7/88
Baltmore Washington International	7/88		7/88
Boston Logan	8/88		8/88
Luis Munoz Marin International Airport	9/88		9/88
Honolulu International Airport	9/88		9/88
Kennedy International Airport	9/88		9/88

Actions Planned:

Conduct inspections at 16 of the Nation's major airports by the end of FY 1988. The first inspection was at Miami International Airport, and the last FY-88 inspection was at Kennedy International. The inspections will continue into FY-89.

8. AGENCY EFFECTIVENESS

A. OBTAIN INCREASED DELEGATION OF PROCUREMENT - AAD-1 (Project Completed)

Milestones:

Request OST delegation	9/87		9/87
Obtain OST delegation	9/87		9/87
Submit oversight plan to AOA-1	12/87		12/87
AOA-1 signature	12/87		12/87
Submit oversight plan to OST	12/87		12/87
Obtain OST approval of oversight plan	12/87		1/88
Complete detailed implementation plan	1/88		1/88

PROJECT	Initial Due Date	Revised Due Date	Completion Date
Submit for ALC-1 approval	1/88		1/88
Approval by API-1 and AAD-1	1/88	2/88	2/88
Final approval by AEX-1	2/88		2/88
Distribution of internal FAA implementation plan	4/88	5/88	5/88

Actions Planned:

An implementation plan will be issued to headquarters, regional, and center offices.

B. FAA EXECUTIVE PERSONNEL SELECTION - AHR-1 (Project Completed)

Milestones:

On September 30, 1987, the Secretary delegated to heads of operating administrations the authority to detail and reassign career Senior Executive Service (SES) members to established positions below the level of Associate Administrator and to appoint graduates of the Department of Transportation's (DOT) SES Candidate Development Program to positions at the same levels.

On October 16, 1987, Departmental Personnel Manual System Letter 920-17 was published outlining further guidance and interpretation of the delegated authorities. This delegated authority has allowed the FAA Administrator to fill key managerial positions more expeditiously.

Actions Planned:

A paper was developed by the Executive Personnel Staff in FAA in early October for use by the Administrator and his staff in seeking this delegation.

PROJECT	Initial Due Date	Revised Due Date	Completion Date

C. ACCELERATE PRODUCTION OF ATC PERSONNEL - AHR-1 (as of 8/31/88)

1. STREAMLINE THE HIRING PROCESS

Milestones:

Initial approval with CPM			8/87
Established Focus Groups			8/87
Focus Group Meetings			8/87
Brief AHR-1			10/87
Joint briefing			10/87
Agreement with OPM and FEI	12/87	4/88	4/88
Fill Temporary Position in APT-200	12/87	3/88	1/88
Conduct Recruitment Study	1/88	6/88	
Brief AAD-1 and ADL-1	3/88	4/88	3/88
Develop recruitment floppy disk software	3/88	9/88	
Procure exam hardware (optical scanners)	4/88		5/88
Fill test-examiner and security positions	5/88	9/88	
Administer tests/"fast track" 90+ scores	6/88	9/88	
Automate ATC test	1/89	9/89	
Procure automated-test hardware	2/89	9/89	
Reprogram OPM data base	6/89		

Actions Planned:

In order to expedite the hiring process, we developed the Modular Applicant Testing, Examining, and Screening (MATES). Basically this requires FAA to assume partial delegation of authority for conducting the ATC entrance examination, to procure portable computers with optical scanners to provide immediate test score feedback to commence the streamlined process, to assume partial

PROJECT	Initial Due Date	Revised Due Date	Completion Date

delegation of the security clearance procedure from OPM, and to enlist the cooperation of the FBI in providing name and fingerprint record checks for potential hires. The objective is to reduce the preemployment processing time from that above 45-60 days.

2. STUDIES OF AIR TRAFFIC TRAINING - AHR-1 (Project Completed)

Milestones:

Initiate Study (NEF)	9/87		9/87
Project Plan Due (NEF)	11/87		11/87
Revised Plan Due (NEF)	12/87		12/87
Plan Approved (NEF)	1/88		1/88
Interim Report Due (NEF)	3/88		3/88
Management Briefing (NEF)	3/88		3/88
Final Report Delivered (NEF)	3/88	5/88	
Initiate Study (HumRRO)	9/87		9/87
Project Plan Due (HumRRO)	10/87		10/87
Revised Plan Due (HumRRO)	11/87		11/87
Plan approved (HumRRO)	1/88		1/88
Interim Report Due (HumRRO)	1/88		1/88
Management Briefing (HumRRO)	3/88		3/88
Final Report Due (HumRRO)	3/88	4/88	4/88

Actions Planned:

Two studies of air traffic training were commissioned in fall 1987. Contractors, obtained through the OPM Training Assistance program, have developed project plans and begun the substantive data gathering and analysis phase of the efforts. These independent studies will produce short-range and long-range plans for modernizing air traffic controller training, with an emphasis on the use of advanced training technology to produce well-qualified FPL controllers in the most expedient and efficient manner. Contractors are HumRRO (Human Resource Research Organization of Alexandria, VA) and NEF (National Education Foundation of Colorado Springs, CO).

PROJECT	Initial Due Date	Revised Due Date	Completion Date

D. **FOCUS GROUPS** - (AHR-1) (as of 8/31/88)

Milestones:

Pilot group AT meeting held 10/28-30			10/87
Conduct meeting with FS group	11/87		11/87
Conduct meeting with FSS	12/87	1/88	1/88
Conduct meeting with ALG	2/88		2/88
Conduct meeting with ADL	3/88		3/88
Conduct meeting with AHR specialists	5/88		5/88
Conduct meeting with Air Traffic	6/88		6/88
Conduct meeting with Security Spec	7/88		7/88
Conduct meeting with Survey Follow-up	9/88		
Conduct meeting with Safety Inspectors	9/88		
Conduct meeting with Civil Rights Specs.	10/88		
Conduct meeting with Accounting Specs. se al	11/88		

Actions Planned:

An action notice has been issued that describes the purpose, background, and responsibilities of of focus groups. A total of 10 focus group meetings will be held in FY-1988.

E. **FAA EXECUTIVE SUCCESSION PLAN (ESP)** - AHR-1 (as of 8/31/88)

Milestones:

Obtain OST comments			10/87
Circulate plan to AMT members	11/87	12/87	12/87
Complete draft implementation order	1/88	10/88	
Define SES KSA's and selection	2/88	11/88	
Complete contract for tracking software	3/88	2/89	

PROJECT	Initial Due Date	Revised Due Date	Completion Date
Distribute final order for comment	4/88	11/88	
Issue final order	8/88	2/89	
Announce program	10/88	5/89	
Begin selection process	1/89	8/89	
Complete interviews	3/89	9/89	
Selection and approval of candidates	4/89	11/89	

Actions Planned:

The selection system will include candidate self-nomination; two levels of supervisory endorsement; an initial evaluation by an SES panel to evaluate each candidate's experience, training, and education; a vouchering process to include input from peers, direct reports, and former supervisors; a regional or associate review panel; and a national evaluation process utilizing an interview and simulations. The final list of candidates will be recommended to the Administrator by an ESP Review Board. He will recommend his selections to the OST ERRC for final approval. The agency will develop a talent pool of individuals who are better prepared to assume critical executive positions in the FAA.

F. SUPERVISORY IDENTIFICATION AND DEVELOPMENT PROGRAM - AHR-1 (as of 8/31/88)

Milestones:

Program Managers in Place	2/88	
Facility Briefings Complete	5/88	10/88
National Vacancy Announcement	6/88	10/88
Eligible-for-Consideration List Prepared	12/88	6/89
First Selections Made	1/89	7/89

PROJECT	Initial Due Date	Revised Due Date	Completion Date

Actions Planned:

National and regional program managers are in position and the implementing order is in the final stages of coordination and approval. Widespread briefings and training will begin in May. We are beginning an effort to provide automated support for the program. Contracting for the conduct of the peer/supervisory assessment process is underway and the contract for skills-based interview training modules has been let. The first national vacancy announcement for the program will be issued in June, and the first selections under the national program will be made in January 1989.

G. AIRWAY FACILITIES TECHNICIAN PIPELINE - AAF-1 (as of 9/23/88)

Milestones:

Publish Airway Facilities Demographic Study	4/88	4/88
Develop a working paper on Airway Facilities retirees	5/88	1/88
Develop an Airway Facilities Recruitment and Training Plan	3/88	3/88
Request legislative authority to rehire annuitants	**	

* The passback from OMB/OST concerning the planned FY 1989 Congressional Budget Submission indicated FAA should not pursue rehired annuitant legislation for airway facilities technicians at this time.

Actions Planned:

1. Publish Airway Facilities Demographic Study.
2. Develop a working paper on Airway Facilities retirees.
3. Develop an Airway Facilities Recruitment and Training Plan.
4. Request legislative authority to rehire annuitants.

PROJECT		Initial Due Date	Revised Due Date	Completion Date
H. **AIR TRAFFIC CERTIFICATION, TRAINING, AND PERFORMANCE REVIEW** - AAT-1 (as of 9/29/88)				
Milestones:				
(OJT/Pos. Cert.)	Develop new procedures	12/87		12/87
	Begin implementation	6/88		6/88
	Complete implementation	12/88		
(OPS)	Develop national plan	9/87		9/87
	Distribute Action Notice	3/88		12/87
	Transfer 7220.2 responsibility FSS	3/88	6/88	6/88
	Conduct Facility Evaluations	7/88	10/88	
(TPR)	Implementation	11/88		
		11/88	12/88	

Actions Planned:

The first of the three efforts (On-the-job-training (OJT) and Position Certification Procedures) involves developing and implementing new procedures for OJT instruction, evaluation, and position certification. Operational Position Standards (OPS) will provide a standardized method for position operation, which could lead to a decrease in operational errors and training failures. OPS have been developed for all positions of operation. The third effort, Technical Performance Review (TPR), is designed to streamline and enhance evaluation of operational performance by developing a new procedure for standardize evaluation of ATC specialists.

I. **EXPEDITE REGULATORY PROCESS** - AGC-1 (as of 9/30/88)

Milestones:

Prepare and coordinate talking points for AOA-1.	3/88		3/88
Develop and coordinate action plan.	3/88		4/88
AGC will complete first draft of Attorney's Desk Book.	9/88		9/88

PROJECT	Initial Due Date	Revised Due Date	Completion Date
AGC will complete final draft of Attorney's Desk Book.	11/88		
AVS, APO, and AGC will complete plans for promoting better understanding among the rulemaking disciplines.	11/88		

Actions Planned:

Ensure that there is an adequate legal and economic support for the internal rulemaking process by: adding resources for AGC Regulations and Enforcement Division (15 regulatory; 7 enforcement) which may then be divided; and adding resources for APO (4 additional positions).

Develop an action plan to:

- o Improve quality of documents and ability to process them.
- o Standardize headquarters and regional regulatory programs.
- o Reexamine the efficacy of the team approach to rule drafting.
- o Consider the feasibility and efficacy of predraft involvement and initial draft preparation by the attorney (with technical input from the project manager); and consider use of the team concept in this approach.
- o Develop effective procedures for clear policy direction from top management within AVS before rule drafting is undertaken.
- o Develop effective procedures for early briefing of AOA-1.
- o Develop effective procedures for resolution of major issues and differences early in the process and at appropriate levels.
- o Procure software and hardware sufficient to achieve efficient interoffice compatibility in automation equipment.

J. OPTIMIZE AGENCY VOICE AND DATA NETWORK - AAF-1 (as of 9/28/88)

Milestones:

Use RCL to replace leased lines	9/86		
Renegotiation of WECO 300 contracts			12/87

PROJECT	Initial Due Date	Revised Due Date	Completion Date
Commission NADIN 1A	1/88		1/88
Lease of Low-density Microwave	3/88	9/88*	
T-1 Service for ARTCC Access	6/88	9/88**	
Recompetition for Circuits	6/88	9/88**	
Standardization of Transmission	6/88	9/88**	
Complete DMN Phase 2	9/89		

* Candidate locations being selected.

** First service orders issued February, March. First contract awards September 1988, continuing activity.

Actions Planned:

Several of the actions required to support this objective are ongoing in nature. Thus, in these cases, milestones below indicate when key results begin to occur. Basic thrusts of this initiative consist of:

Task 1 - Replace maintenance-intensive RML with new RCL equipment and expand the RCL network to provide a backbone capability.

Task 2 - Use agency-owned RCL, NADIN 1A, and Data Multiplexing Network to replace most costly leased circuits.

Task 3 - Recomplete and/or renegotiate contracts for existing circuits and equipment to obtain required services at equal or lower prices.

Task 4 - Update system of transmission standards used in the FAA to increase competition and access to newer, off-the-shelf technology.

PROJECT	Initial Due Date	Revised Due Date	Completion Date
K. **ASSESS AFSS PERFORMANCE** - AAT-1 (as 9/29/88)			
Milestones:			
Submitted resource change proposal for 6 ATS evaluators originally requested in FY-89 to be included in FY-88 budget.	1/88		1/88
Based on approval of above, organize AFSS evaluation group, allocate resources, develop evaluation methodology, and develop plan for main phase of evaluation process.	7/88	1/89	
Sample AFSS locations to observe operations, interview staff, collect data, prepare findings and recommendations, and develop evaluation program to include all AFSS locations.	9/88	3/89	
Begin assessment of all AFSS's on a published schedule.	11/88	4/89	

Actions Planned:

Collect and analyze data to evaluate the adequacy of Automated Flight Service Station performance and the effectiveness with which AFSS resources are applied. The proposed AFSS system evaluation will focus on measurement of performance, but will produce analyses of problems at a level of detail sufficient to identify their causes. Equipment and personnel resources will be examined to assess their respective contributions to overall productivity. Procedures, practices, and techniques will be appraised to consider whether and how more productivity could be achieved through their systematic modification.

PROJECT	Initial Due Date	Revised Due Date	Completion Date

L. **U.S./FAA INFLUENCE IN INTERNATIONAL COMMUNITY** - API-1 (as of 9/30/88)

Milestones:

On December 28, 1987, the Assistant Secretary for Policy and International Affairs signed a memo which provides support for FAA's efforts to establish additional international representative positions in the Asia Pacific region. By April 30, 1988, the FAA will have representatives selected for Amman, Jordan, and Singapore. In addition, discussions are underway to establish FAA representative positions in Beijing, China, and Canberra, Australia. No specific dates have been established for these two additional representatives.

Actions Planned:

Establish FAA offices in the Far East which will provide essential coverage by FAA international representatives and aviation safety inspectors.

H. **ESTABLISH FEDERALLY FUNDED RESEARCH AND DEVELOPMENT CENTER (FFRDC)** - ADL-1 (Project Canceled)

Milestones:

Discussions with OST M-1/3/60, receive agreement to proceed	11/87		11/87
FFRDC package coordinated within FAA	2/88	4/88	
Approval by OST	4/88	4/88	
Establish FFRDC	10/88		

Actions Planned:

Coordination with OST has been initiated to obtain OST approval and prepare procurement documentation to formally establish MITRE as an FFRDC.

PROJECT	Initial Due Date	Revised Due Date	Completion Date

N. **AGENCY STRATEGIC PLANNING** - API-1 (as of 8/29/88)

Milestones:

The next meeting of the PMT is scheduled for February 16, 1988. At that meeting, the Administrator and the PMT will discuss the objectives and nature of the strategic planning process and its desired outcomes. Future milestones will be established based on the decisions made by the PMT.

Actions Planned:

A proposed program of strategic planning activities has been developed and is under consideration by the Administrator and the Executive Directors. The goal is to establish a process for strategic planning rather than simply focusing on publishing a plan.

O. **OFFICE AUTOMATION TECHNOLOGY & SERVICES (OATS)** - AAD-1 (as of 9/29/88)

Milestones:

Issue RFP September 1987	9/87		9/87
Complete Response to Vendor Questions	11/87		12/87
Issue Draft RFP Amendment	7/87		7/88
Recieve Comments	8/88		8/88
Issue RFP Amendment	9/88	10/88	
Receive Comments		10/88	
Respond to Comments		11/88	
Vendor Proposals Received	12/87	11/88	
Technical Evaluations Complete	2/88	3/89	
Operational Capability Demos Complete	6/88	5/89	
Recommendation to Source Select Official	7/88	7/89	
Contract Award	9/88	9/89	

PROJECT	Initial Due Date	Revised Due Date	Completion Date

Actions Planned:

Recommendations on the restructuring of the RFP to meet user needs have been implemented. The RFP has been revised and prepared for printing and distribution to industry for comments. Distribution is expected by 7/18/88 and comments are due back by 8/11/88.

P. MANAGEMENT INFORMATION SYSTEMS - AAD-1 (as of 9/27/88)

Milestones:

Phase I			
Design and Develop Prototype	11/87		11/87
- Data Resource	8/87		8/87
- Budget Information System	8/87		8/87
- Operational Management Information System	9/87		9/87
- Executive Information System	11/87		11/87
Phase II			
Install Prototype	6/88		
- Data Resource in ACE	9/87		9/87
- Budget Information System	10/87		10/87
- Operational Management Information System in AEA	6/88	8/88	8/88
- Executive Information System in ACE	6/88	10/88	
Phase III			
Expand System Nationally	12/88		
- Data Resource	4/88	10/88	
- Executive Information System	12/88		

PROJECT	Initial Due Date	Revised Due Date	Completion Date
- Budget Information System	10/88		
- Initiate Operational MIS	12/88		

Actions Planned:

During 1988, a pilot FAA MIS will be tested in the Eastern Region and the Central Region. After this test, the FAA MIS will be expanded to the rest of the agency.

Q. **COMPUTER RESOURCE NUCLEUS (CORN)** - AAD-1 (as of 9/23/88)

Milestones:

TSARC/MSA (KDM) Submission to OST	11/87	5/88	5/88
Agency Procurement Request (APR)	11/87		12/87
TSARC/MSA Approval	12/87	8/88	
Selection Plan (SP) Submission to OST	12/87	5/88	7/88
Delegation of Procurement Authority DPA	12/87	2/88	2/88
Issue Request for Proposals (RFP)	3/88	10/88	
Receipt of Proposals	5/88	10/88	
Conversion Specifications	5/88	11/88	
Conduct Technical Evaluation	5/88	12/88	
Establish Conversion Reference Library	5/88	10/88	
Establish Competitive Range	7/88	1/89	
Live Test Demonstration Specifications	10/88	12/88	
Conduct Live Test Demonstrations	10/88	3/89	
Project Contract Award	11/88	3/89	

PROJECT	Initial Due Date	Revised Due Date	Completion Date

Actions Planned:

Within FAA, several concurrent actions are in progress that will require future DOT action. They include: (1) the Major System Acquisition Key Decision Memorandum; (2) the Selection Plan for the acquisition; and (3) the Request for Proposal. All of these latter actions are necessary to award the Request for Proposal by the dates shown on the schedule below.

B. ASSESS AGENCY EFFECTIVENESS - AAD-1 (as of 9/28/88)

Milestones:

Establish workgroup	1/88		1/88
Develop PR	2/88		2/88
Receive OMB approval	4/88	7/88	7/88
Award contract	6/88		6/88
Complete design phase	7/88	9/88	9/88
First report	10/88	1/89	
Assess data	11/88	2/89	
Second report	1/89	4/89	
Third report	4/89	7/89	
Final report	7/89	10/89	

Actions planned:

Wh have received the database (in the requested formate) for all airports open to the public, and we have also received the database from the Air Line Pilots Association (ALPA). We are awaiting the database from the International Airline Passengers Association (IAPA). We have been informed by both associations that the databases will be provided very soon. Pilot testing will begin as soon as the databases are received.

SENATOR LAUTENBERG: You are asking for $1.7 billion of the $3.9 billion Operations request to be derived from the trust fund. How did you derive this figure?

ANSWER: The Administration is proposing that, notwithstanding the penalty provision, Trust Fund support of Operations should be equal to the estimated cost of operating the Air Traffic Control System -- $1.75 billion.

SENATOR LAUTENBERG: Under the Administration's request (for F&E and Airport Grants), what would, under current law, be derived from the trust fund?

ANSWER: The penalty provision in the current legislation would allow only $949,000 of Trust Fund monies to be used to cover Operations costs.

REEMPLOYED ANNUITANT

SENATOR LAUTENBERG: How has the "reemployed annuitant" provision worked for the past three years? Is it needed for FY 1990? Why?

ANSWER: The reemployed annuitant provision has been useful over the past three years, particularly in helping to staff positions in air route traffic control centers. The continued use in FY 1990 of this important staffing tool is needed, and if the program is extended it will continue to be used to augment staffing in these facilities.

REEMPLOYED ANNUITANT COSTS

SENATOR LAUTENBERG: What has been the cost of the annuitant program for the past 3 years?

ANSWER: The following amounts over the last three years were transferred into the Operations Appropriation to cover remployed annuitant costs:

FY 1986	FY 1987	FY 1988
$8,000,000	$10,000,000	$4,287,000

SENATOR LAUTENBERG: What is the amount necessary for Headquarters Administration?

ANSWER:

- Headquarters Administration will require $29,961,000, 397 positions, and 393 FTEs for FY 1990.
- Headquarters Administration funds the Washington functions that establish policy and direct programs which provide the following services:
  - Direction and Management - overall planning and executive direction and control of FAA activities. Liaison with OST, Congress, other agencies, aviation community, and the public. $8,786,000
  - Accounting - provides accounting and financial advisory services to the agency. $2,196,000
  - Budget - ensures that the agency's budgetary needs are accurately identified and defined and effectively presented to OMB/Congress. Ensures that resources are available and effectively utilized. $3,282,000

- Civil Rights - assures full and affirmative implementation of civil rights and equal opportunity within FAA. $917,000
- International Aviation - provides program direction and management to ensure the adequacy of national and international aviation system policies, goals, and priorities. $5,158,000
- Management Systems/Data Systems - develops and administers the implementation and operation of FAA organizational plans, management systems and controls, and standards and procedures. Provides support to the agency in the areas of ADP, graphics, publishing, libraries, and mail. $9,622,000

SENATOR LAUTENBERG: Travel costs increase in FY 1990 considerably over the 1989 level. Why?

ANSWER: The travel costs in FY 1989 have been held down artificially primarily in the training area, where we are far below the amount of training required -- especially for aviation safety inspectors and field maintenance technicians. The increase from FY 1989 to FY 1990 is due to inflation, change of station costs, training and job related travel, field facility evaluations and safety and efficiency reviews, and new training initiatives. Almost half of the FY 1990 increase is directly related to training for inspectors and technicians. We have a very large increase in the number of people going through training, and travel and per diem costs associated with the people going through training account for the majority of the increase in travel costs. A table which details our travel follows:

TRAVEL & TRANSPORTATION OF THINGS
OPERATIONS APPROPRIATION
(Amounts in thousands)

	FY 1988	FY 1989	FY 1990
Training travel	32,643	35,205	44,842
Job performance travel . . .	29,312	31,114	36,850
Other travel	15,119	15,622	18,021
Transportation of things . .	20,742	19,532	22,023
Total	97,816	101,473	121,736

SENATOR LAUTENBERG: What are "other services" and why does this line item jump nearly fifty percent over FY 1989?

ANSWER: Other services primarily consist of our contractual services. We have held down contracting in 1989. We've deferred an extensive amount of contractual and support work in order to cover the mandatory increases we've had in payroll, so we are starting from a depressed base in 1989, well below the amount that we had originally testified to a year ago.

Of the $154 million, about 30 percent of that increase is associated with the air traffic control system where we have substantial new contracts coming on line for contract towers, contract weather services, and automation support. Thirty percent of the increase of $154 million is attributable to the new training initiatives that we have in training support. About 20 percent of that increase is attributable to the systems maintenance activity,

where we have substantial additional contractual work associated with the NAS Plan. A partial list of the contract work deferred to cover pay raises is as follows:

OTHER SERVICES
Operations Appropriations
FY 1990 Estimates
(Amounts in thousands)

	FY 1988 Actual	FY 1989 Column of the FY 1990 Congressional	FY 1990 Column of the FY 1990 Congressional	Difference FY 1990 over FY 1989
Reimbursement to airlines for screening devices	154	0	0	0
On-the-job training for flight inspection and procedures	880	1,191	1,225	34
Contract maintenance	11,208	20,519	28,015	7,496
Security investigations	413	387	390	3
Audio visual services	123	429	524	95
Federal Air Marshal	298	417	0	(417)
Contractual studies	4,787	4,915	5,365	450
USAF training of K-9 teams	367	367	367	0
Boeing wind shear contract	360	0	0	0
AFIS II programming to support NAS Plan flight inspection	185	77	91	14
Substance Abuse Program	4,500	2,907	1,200	(1,707)
Technical Center:				
Sector operations support contract	2,400	1,963	3,193	1,230
Other engineering support	1,500	1,530	4,900	3,370
tion of contract ATC Towers	2,180	2,980	7,380	4,400
or labor contract Tokyo	142	99	117	18
Flight inspection furnished by Iceland	179	76	91	15
JDL contract for personal services for clerical functions	317	434	434	0
Physical examinations	2,027	1,625	1,684	59
Aviation Safety Reporting Program	1,900	1,900	1,900	0
AAC - Engineering design and support	2,221	2,303	5,603	3,300
Automated datatron contract for Aircraft Registration Administration System (ARRAS)	584	584	625	81
Storage of household effects	2,637	2,819	3,079	260
Fight Service Automation Systems (FSAS)	2,496	1,296	1,796	500
Flight/nonflight training	2,982	3,878	3,983	105
Repair/maintenance of administrative, operating, working, and test equipment	965	1,338	647	(691)
Contractual cost of exchange and repair items:				
General stocks and stores	11,425	20,136	29,219	9,083
Overhaul of aircraft engines	4,314	4,627	4,794	167
Aircraft rental	4,678	6,523	9,804	3,281
Regulatory analysis	0	0	158	158
Aircraft routine inspection and repair/modifications	4,960	5,320	5,150	(170)
Repair, maintenance, and inspection of equipment and buildings	19,700	25,752	29,848	4,096
Aviation Safety Analysis System (ASAS)	5,824	6,800	7,800	1,000
Cohtractual time-sharing teleprocessing services	2,053	3,196	3,351	155
Leased Telcommunications - Transportation Support Center	10,856	10,856	14,256	3,400
F''-ht training	7,580	9,859	10,169	310
contractual services	1,278	1,529	2,054	529
. .ractual data processing services	21,950	21,793	27,012	5,219
Janitorial and guard services	15,575	15,822	16,927	905
Aeronautical charting services	9,729	9,315	10,904	1,589
Repair and maintenance of ADP equipment	7,253	6,042	6,369	327
Pilot maintenance contract	0	0	5,000	5,000
Training initiatives contract services	0	7,500	31,030	23,530
Secure communications link	258	0	0	0
Automation support contract	3,722	3,981	3,572	(409)
Contractual training services	53,016	54,356	77,236	22,880
Supervisory Identification & Development Programs services	449	1,505	1,508	3
Employee Involvement Program services	1,992	2,448	2,500	52
Employee Assistance Program services	156	506	506	0
Air Traffic/Airway Facilities advertising services	449	1,049	2,000	951
Center Weather Services - FAA/NOAA	4,880	4,880	4,880	0
Weather Observation Services	7,015	9,314	14,714	5,400
Job task analysis for pilot & flight crew training cert	854	0	0	0
Project SAFE	882	203	500	297

Aircraft airworthiness composite and major repairs	0	85	150	85
raft Evaluation Group	92	0	0	0
g aircraft	0	0	200	200
Accident Prevention Program	78	0	0	0
Development of Flight Standards District Human Resource Management Guides	0	104	272	168
NASIP inspections	0	230	423	193
Society of Automotive Engineers	80	80	85	5
Medical clinic service for ARTCC's	0	1,404	1,596	192
Project SMART	1,000	800	2,401	1,601
Military handbooks	150	160	170	10
Aircraft Obstruction Survey Program	2,840	3,140	3,525	385
Office of Automation Technology & Services (OATS)	0	0	4,000	4,000
Flight Service Data Processing System	0	0	2,800	2,800
Radar training	0	0	750	750
NAS Plan Program Implementation	0	0	1,750	1,750
Random drug testing	0	3,512	5,500	1,988
Not otherwise classified	70,277	93,189	126,352	33,163
Total, Other Services	329,188	390,089	543,722	153,633

STAFFING DATA

SENATOR LAUTENBERG: List the number of political appointees, senior executive service personnel by level, and general schedule personnel by grade for fiscal years 1987, 1988, 1989, and projected for 1990.

ANSWER:

		Fiscal Year			
Appointment Type	Level/Grade	1987 Actual	1988 Actual	1989 Estimate	1990 Estimate
POLITICAL APPOINTEES:					
Presidential Appointees	EX-II	1	1	1	1
	EX-IV	0	1	1	1
Non-career SES	ES-05	2	1	1	*
	ES-04	3	0	1	*
	ES-03	0	1	1	*
	ES-01	0	2	0	*
Schedule "C"	GM-15	0	2	4	*
	GM-14	0	1	0	*
	GS-14	1	0	0	*
	GS-12	1	2	2	*
	GS-11	1	1	0	*
	GS-10	1	1	0	*
	Subtotal	10	13	11	2
CAREER SES:	ES-06	0	2	3	3
	ES-05	18	17	22	22
	ES-04	98	98	99	99
	ES-03	9	8	9	9
	ES-02	2	5	4	4
	ES-01	3	6	5	5
	Subtotal	130	136	142	142**

GM:	GM-15	2,290	2,457	2,688	2,804
	GM-14	1,856	2,081	2,063	2,152
	GM-13	1,767	1,750	1,764	1,840
	Subtotal	5,913	6,288	6,515	6,796
GS:	GS-15	9	10	11	11
	GS-14	6,460	6,862	7,361	7,678
	GS-13	4,880	5,126	4,918	5,129
	GS-12	8,780	8,699	8,769	9,147
	GS-11	7,101	7,649	7,673	8,004
	GS-10	1,536	1,452	1,528	1,593
	GS-09	3,323	3,755	3,423	3,570
	GS-08	190	194	185	193
	GS-07	3,635	2,891	3,051	3,182
	GS-06	1,137	1,140	1,193	1,244
	GS-05	1,497	1,538	1,568	1,635
	GS-04	527	530	610	636
	GS-03	99	82	63	66
	GS-02	4	4	1	1
	GS-01	0	0	1	1
	Subtotal	39,178	39,932	40,355	42,090
	TOTAL:	45,231	46,369	47,023	49,030

* Unknown at this time.
** An adjustment to the number of career SES positions to be allocated to FAA for FY 1990 is currently under negotiation with the Office of the Secretary.

SENATOR LAUTENBERG: How was the annualization figure of $286 million derived?

ANSWER: Annualization costs are costs incurred by the Agency because of built-in increases such as Within Grade pay increases (WIG's) or Grade-to-Grade promotions; because of other changes such as legislation (i.e. pay raise); or costs associated with employees hired in the previous year. These costs are incurred to maintain ongoing programs and activities. A number of assumptions are used in budgeting for these items, such as:

o WIGs are based on the number of employees eligible for WIG's adjusted for turnover and downgrades, and the average salaries of the employees.

o Grade-to-Grade promotions estimates are based on historical data and analysis of the workforce. Budgeting for Grade-to-Grade promotions is limited to air traffic control specialists and field maintenance electronic technicians.

o The pay raise estimates are based on the cost of paying for the FY 1989 4.1% pay increase in FY 1990.

o Annualization of FY 1989 FTE costs assume that new employees brought on in FY 1989 worked on average for 6 months. This means that two employees were hired for each additional FTE approved by Congress in FY 1989. The annualization request is to allow the Agency to cover the full year cost of the new employees' salaries.

o Annualization costs for Leased Telecommunications are based on full year costs of circuits which were installed in FY 1989 and only funded for part of the full year cost of these circuits.

SENATOR LAUTENBERG: Explain the overtime estimates for 1989 and the projected overtime for 1990.

ANSWER: From FY 1983 through FY 1987, there was an erratic, but upward trend in actual overtime usage. Due to the controller strike, the agency had fewer controllers during a period when air traffic volume had increased and when on-the-job training requirements for replacement controllers had increased. These factors heavily influenced the amount of overtime and the FAA's overtime estimates.

We used this upward trend to estimate overtime for FY 1988 and FY 1989 in the FY 1989 Congressional Budget submission. When the FY 1988 actual data became available, overtime usage had, in fact, decreased from the prior year. We used this percentage of decrease to forecast overtime estimates for FY 1989 in the FY 1990 Congressional Budget submission. Based on Air Traffic's current estimate of staffing; the volume of air traffic activity; training and other factors, overtime estimates for FY 1990 remained relatively unchanged from the FY 1989 estimates.

SENATOR LAUTENBERG: Overtime hours appear to be declining, yet costs increase. Why?

ANSWER: Hours are declining due to better management of overtime usage, an increase in the number of controllers on board, increasing number of shifts to manage peak periods, and scheduling on the job training (OJT) during slow traffic periods.

Costs are increasing because overtime for Air Traffic Controllers is paid at true time and one-half on a salary base that increases with each pay raise.

The Air Traffic En Route Centers have an increase in controllers reaching FPL status which equates to higher graded personnel being paid overtime. Also, by the end of FY 1989, the controller work force will have increased by approximately 900 positions. FPL controllers are utilized on a one-to-one basis for OJT training to these new academy graduates.

With the Flight Service Station (FSS) consolidations to Automated FSSs, there is a higher grade mix of personnel working overtime.

SENATOR LAUTENBERG: Detail the overtime costs by region, type of facility, time of year, and time of week/day incurred.

ANSWER: Cost information has been derived from the Federal Aviation Administration Budget Information System (BIS). The attached sheets provide overtime information by month for fiscal year (FY) 1988, a total FY 1988 data, by month for FY 1989, and a total year-to-date number for FY 1989. This information is displayed by total agency, region/center, and type of facility.

Information on time of week/day is kept only on the individual time and attendance record for each employee. Computer programs determine the amount to be paid to each employee based on the application of legislation under Title V and the Fair Labor Standards Act.

FEDERAL AVIATION ADMINISTRATION
BUDGET INFORMATION SYSTEM

ROW : 90101 : AIR TRAFFIC

PERIOD	FAA FAA	NEW ENGLAND ANE	EASTERN AEA	SOUTHERN ASO	SOUTHWEST ASW	GREAT LAKES AGL	CENTRAL ACE	NORTHWEST/MOU ANM	WESTERN/PACIF AWP	ALASKAN AAL	AERONAUTICAL CNTR AAC	TECHNICAL CNT ACT	WASHINGTON AWA
					COLUMN : 1151 : OVERTIME PAY								
OCT87 (ACT)	1,956,048	154,788	450,743	281,144	80,070	336,836	135,230	71,305	373,097	48,199		20,740	3,883
NOV87 (ACT)	2,375,908	105,245	438,704	342,487	79,907	541,720	222,676	54,903	529,600	43,452		14,749	2,486
DEC87 (ACT)	1,858,128	101,267	457,821	240,676	57,229	245,588	108,891	56,752	338,788	31,812		16,514	2,811
JAN88 (ACT)	1,508,393	56,647	384,084	299,085	40,171	277,812	84,739	64,784	358,353	29,347		1,229	2,182
FEB88 (ACT)	2,033,952	73,085	518,617	326,077	64,032	378,502	190,701	39,942	384,312	42,143		12,090	4,443
MAR88 (ACT)	2,390,304	151,223	587,463	354,813	90,621	467,046	238,138	56,823	400,142	30,844		8,583	4,508
APR88 (ACT)	2,051,788	93,797	389,141	396,842	64,196	420,920	179,639	51,078	416,294	35,387		854	3,842
MAY88 (ACT)	1,638,970	109,908	246,748	289,146	59,642	301,562	101,929	49,053	408,300	53,107		8,786	10,780
JUN88 (ACT)	1,861,278	95,058	290,672	305,653	61,342	363,052	163,308	63,572	458,881	52,634		3,318	3,787
JUL88 (ACT)	1,844,188	139,216	349,923	246,497	56,969	363,195	127,461	49,023	445,577	62,561		1,133	2,633
AUG88 (ACT)	3,272,112	235,476	688,810	399,518	91,464	761,529	220,262	134,959	657,891	65,241		8,103	8,058
SEP88 (ACT)	1,345,945	23,976	319,101	186,106	49,579	223,974	84,314	9,326	420,286	37,886		9,435	1,981
F88 (ACT)	24,001,236	1,338,407	5,120,868	3,646,178	790,611	4,680,070	1,856,671	700,175	5,183,998	531,670		100,956	51,633
OCT88 (ACT)	1,604,230	86,621	368,688	222,105	75,324	300,822	113,009	69,423	346,525	29,881		5,125	8,707
NOV88 (ACT)	1,739,419	60,548	321,913	232,156	57,215	456,262	100,349	30,963	410,709	42,558		7,882	10,864
DEC88 (ACT)	1,676,866	52,705	361,906	242,726	76,291	452,167	55,271	57,854	338,581	22,909		7,651	8,806
JAN89 (ACT)	1,550,177	40,877	327,018	261,372	68,082	315,843	106,000	53,021	359,868	19,817		834	-2,355
FEB89 (ACT)	1,808,669	50,074	375,807	268,335	83,768	378,963	100,631	55,326	455,300	31,272		5,617	3,574
MAR89 (ACT)	2,177,179	78,629	464,154	398,602	78,047	413,249	129,696	41,185	524,014	25,309		13,088	11,194
APR89 (ACT)	1,889,471	56,010	395,534	331,379	88,778	300,277	192,147	51,445	420,289	54,061		3,003	-3,454
MAY89 (ACT)	2,319,454	127,615	482,377	251,221	159,932	509,204	144,086	59,771	530,477	44,447		8,705	1,619
MAY89CUM (ACT)	14,765,465	533,081	3,097,396	2,207,895	687,437	3,126,787	941,190	418,989	3,385,564	270,254		51,915	44,965
					ROW : 9010110 : AT-CENTERS								
					COLUMN : 1151 : OVERTIME PAY								
OCT87 (ACT)	827,148	94,254	194,133	108,321	19,541	156,527	88,855	27,723	116,170	23,560			56
NOV87 (ACT)	1,056,968	57,558	154,438	150,738	35,941	313,818	142,954	25,626	154,221	21,303			370
DEC87 (ACT)	757,890	44,121	199,104	141,223	21,245	98,256	99,713	15,706	117,976	20,528			19
JAN88 (ACT)	667,576	40,405	150,266	146,399	9,296	125,130	57,619	18,789	107,863	11,116			883
FEB88 (ACT)	1,011,316	38,036	260,932	177,549	28,045	187,398	153,815	15,590	129,792	18,804			1,353
MAR88 (ACT)	1,093,876	73,717	253,897	146,274	40,742	239,907	177,636	18,259	130,007	14,181			1,257
APR88 (ACT)	1,058,815	89,621	212,350	185,047	21,989	265,271	138,310	21,293	126,528	17,286			1,119
MAY88 (ACT)	709,930	52,878	102,823	139,354	20,024	134,074	72,307	15,610	151,815	13,802			7,642
JUN88 (ACT)	796,591	34,960	134,905	134,195	28,428	162,950	111,900	22,922	147,089	19,020			223
JUL88 (ACT)	780,332	64,833	142,365	103,666	19,363	180,653	87,397	14,431	142,646	23,872			1,057
AUG88 (ACT)	1,446,254	101,338	334,864	186,376	33,718	357,665	154,074	55,350	209,920	28,287			4,861
SEP88 (ACT)	410,916	-7,873	119,370	65,881	20,715	62,357	63,476	-5,935	82,776	9,662			488
F88 (ACT)	10,617,583	663,896	2,259,438	1,663,011	299,047	2,284,007	1,348,056	243,357	1,616,611	221,221			18,930
OCT88 (ACT)	607,805	18,832	139,526	89,690	36,258	124,274	72,370	20,625	97,431	7,917			880
NOV88 (ACT)	750,099	18,583	122,654	121,008	26,084	250,324	55,470	14,840	109,355	20,845			10,936
DEC88 (ACT)	709,270	14,652	142,276	95,315	31,731	257,074	34,345	28,839	93,430	3,453			8,154
JAN89 (ACT)	669,563	7,673	157,291	125,627	35,488	136,033	89,366	18,054	120,862	1,800			-2,430
FEB89 (ACT)	818,288	14,106	209,560	126,503	41,622	196,255	85,059	15,489	143,295	5,455			944
MAR89 (ACT)	1,044,825	20,552	236,614	212,339	34,273	229,879	98,503	14,589	192,066	2,668			5,243
APR89 (ACT)	949,915	20,272	218,168	204,838	43,894	157,517	155,688	17,963	124,533	8,911			-1,869
MAY89 (ACT)	1,056,864	53,072	298,310	79,918	59,872	254,825	102,345	17,106	181,337	10,102			-224
MAY89CUM (ACT)	6,606,430	167,740	1,524,400	1,055,239	309,222	1,606,182	651,146	147,605	1,062,310	60,951			21,633

ROW : 9010120 : AT-TOWERS

PERIOD	FAA FAA	NEW ENGLAND ANE	EASTERN AEA	SOUTHERN ASO	SOUTHWEST ASW	GREAT LAKES AGL	CENTRAL ACE	NORTHWEST/MOU ANM	WESTERN/PACIF AWP	ALASKAN AAL	AERONAUTICAL CNTR AAC	TECHNICAL CNT ACT	WASHINGTON AWA
					COLUMN : 1151 :	OVERTIME PAY							
OCT87 (ACT)	865,272	50,373	222,948	128,700	40,997	128,144	35,907	23,767	227,189	7,247			
NOV87 (ACT)	1,017,278	43,144	243,753	139,118	26,436	184,513	55,825	8,781	312,221	3,486			
DEC87 (ACT)	738,380	45,880	237,881	77,635	18,538	129,324	2,829	23,678	202,098	516			
JAN88 (ACT)	708,435	9,175	202,292	107,050	19,023	122,602	16,281	18,388	209,855	3,789			
FEB88 (ACT)	830,368	28,694	223,073	125,030	21,938	155,951	30,942	14,585	226,387	3,767			
MAR88 (ACT)	1,036,228	68,378	298,092	155,792	28,672	173,677	45,738	24,788	241,190	-80			
APR88 (ACT)	794,847	17,604	158,280	186,048	23,232	120,826	31,842	13,977	239,713	3,344			
MAY88 (ACT)	732,811	43,750	126,326	117,673	28,989	138,185	22,940	16,867	222,578	15,505			
JUN88 (ACT)	860,012	41,811	134,321	144,532	25,167	170,392	41,251	16,779	271,717	14,043			
JUL88 (ACT)	831,355	46,067	185,637	106,639	24,177	147,842	29,391	17,580	280,428	11,598			
AUG88 (ACT)	1,409,208	100,620	302,862	174,044	37,263	289,037	49,114	53,839	391,860	10,570			
SEP88 (ACT)	727,555	22,347	182,326	85,999	16,233	106,070	13,481	4,347	289,365	7,388			
FY88 (ACT)	10,532,796	516,567	2,517,772	1,548,408	306,547	1,865,123	375,007	236,042	3,087,095	80,235			
OCT88 (ACT)	809,526	38,717	201,121	102,851	26,884	144,718	33,706	35,004	224,788	1,756			
NOV88 (ACT)	780,038	34,852	177,813	74,789	23,043	170,238	33,116	-1,356	263,317	4,249			
DEC88 (ACT)	766,329	28,037	195,991	110,393	27,100	159,207	15,203	9,735	218,942	1,722			
JAN89 (ACT)	680,205	20,652	148,742	101,834	23,620	144,022	26,642	19,542	194,878	276			
FEB89 (ACT)	801,893	25,706	145,306	114,589	33,474	151,808	24,300	17,687	285,524	3,189			
MAR89 (ACT)	886,475	38,809	192,489	145,945	33,085	146,860	19,011	9,664	297,722	3,111			
APR89 (ACT)	733,813	27,273	158,563	87,416	24,343	103,771	26,634	18,175	261,673	25,965			
MAY89 (ACT)	978,474	48,910	145,495	136,827	68,163	204,451	32,454	17,271	309,461	15,442			
MAY89CUM (ACT)	6,438,554	282,955	1,365,498	874,724	259,713	1,224,872	211,067	125,722	2,058,283	55,720			

ROW : 9010130 : AT-FSS

					COLUMN : 1151 :	OVERTIME PAY							
OCT87 (ACT)	235,618	10,161	32,533	46,118	19,532	51,867	8,670	19,815	29,730	17,393			
NOV87 (ACT)	275,406	4,542	39,357	52,631	17,136	42,903	16,751	20,451	63,158	18,478			
DEC87 (ACT)	142,478	11,232	21,377	21,818	17,547	16,791	6,731	17,410	18,881	10,881			
JAN88 (ACT)	214,228	7,075	31,027	45,529	10,921	29,340	7,865	27,587	40,423	14,463			
FEB88 (ACT)	176,480	6,354	33,935	23,551	14,490	35,787	4,870	9,766	28,133	19,572			
MAR88 (ACT)	239,084	9,127	33,893	52,747	21,207	52,230	9,297	15,742	28,214	16,528			
APR88 (ACT)	182,710	6,573	17,636	25,094	18,735	34,418	9,216	15,858	50,398	14,791			
MAY88 (ACT)	179,490	13,008	16,420	32,828	10,778	28,613	3,614	16,575	34,063	23,783			
JUN88 (ACT)	194,715	18,091	21,197	26,587	7,747	29,455	8,285	23,870	39,938	19,535			
JUL88 (ACT)	225,687	28,328	21,624	34,258	13,429	34,482	6,956	17,012	42,504	27,083			
AUG88 (ACT)	396,308	33,135	49,656	59,098	20,414	112,918	12,836	25,738	56,101	26,410			
SEP88 (ACT)	145,151	9,828	17,712	14,133	12,821	6,131	5,413	10,783	47,980	20,558			
FY88 (ACT)	2,616,142	157,252	335,982	434,203	184,263	474,634	100,422	220,586	479,336	229,484			
OCT88 (ACT)	173,684	9,072	27,854	29,583	12,181	31,649	5,037	13,793	24,326	20,208			
NOV88 (ACT)	188,002	6,823	21,129	36,332	8,068	35,580	8,232	17,202	37,458	17,350			
DEC88 (ACT)	188,753	9,767	22,633	37,010	17,459	35,853	4,534	18,074	25,880	17,734			
JAN89 (ACT)	191,884	12,501	20,380	32,259	8,974	35,788	6,736	14,853	42,862	17,941			
FEB89 (ACT)	178,327	10,055	21,236	26,757	8,632	30,901	9,928	21,847	26,354	22,618			
MAR89 (ACT)	222,741	18,844	35,032	40,318	10,560	36,501	11,679	16,345	33,932	19,531			
APR89 (ACT)	197,683	6,943	17,304	39,124	20,169	38,605	7,855	14,705	33,792	19,185			
MAY89 (ACT)	267,315	26,033	38,361	34,310	31,610	49,159	7,690	24,381	39,422	16,347			
MAY89CUM (ACT)	1,608,398	99,838	203,930	275,673	117,673	293,835	61,690	141,000	263,836	150,923			

ROW : 901015 : AT-P,D&E TOTAL

PERIOD	FAA FAA	NEW ENGLAND ANE	EASTERN AEA	SOUTHERN ASO	SOUTHWEST ASW	GREAT LAKES AGL	CENTRAL ACE	NORTHWEST/MOU ANM	WESTERN/PACIF AWP	ALASKAN AAL	AERONAUTICAL CNTR AAC	TECHNICAL CNT ACT	WASHINGTON AWA
COLUMN : 1151 : OVERTIME PAY													
OCT87 (ACT)	28,007		1,129	6		497	1,798					20,740	3,837
NOV87 (ACT)	26,255		1,155		384	486	7,145	44		185		14,749	2,006
DEC87 (ACT)	19,381	34	-541		-100	1,217	-383	-41	3	-114		16,514	2,782
JAN88 (ACT)	8,153	-7	470	107	931	739	2,875		212			1,229	1,488
FEB88 (ACT)	15,809		677	-53	-442	-635	1,074					12,089	3,090
MAR88 (ACT)	21,116		1,482			1,232	5,467	52	731	218		8,583	3,341
APR88 (ACT)	5,417		884	654	240	404	270	-52	-337	-33		854	2,723
MAY88 (ACT)	18,738	273	1,179	-508	-149	880	3,068		48	207		8,786	3,146
JUN88 (ACT)	8,950	196	249	329		255	1,872	2	137	36		3,318	3,564
JUL88 (ACT)	8,814	-82	297	-65		218	3,716					1,133	1,576
AUG88 (ACT)	20,345	383	1,428		70	1,910	4,237	33	10	-26		8,103	4,197
SEP88 (ACT)	62,323	-126	-306	93	-188	48,416	1,944	152	154	257		9,435	1,493
FB8 (ACT)	234,715	892	7,896	557	754	56,306	33,185	189	957	730		100,956	32,884
OCT88 (ACT)	13,216		187			181	1,806					5,125	5,827
NOV88 (ACT)	21,280	491	318	47		122	3,531	278	578	105		7,882	7,928
DEC88 (ACT)	12,514	250	1,006	9		232	1,189	1,206	319			7,651	652
JAN89 (ACT)	8,515	53	605	1,653			3,255	772	1,266			834	75
FEB89 (ACT)	10,360	208	-295	386	40		1,345	303	127			5,617	2,630
MAR89 (ACT)	23,138	425	39		129	210	2,504	488	295			13,098	5,951
APR89 (ACT)	8,060	1,522	1,489		373	384	1,970	602	291			3,003	-1,564
MAY89 (ACT)	17,001	-400	210	165	286	789	1,587	1,013	257	2,555		8,705	1,844
MAY89CUM (ACT)	114,084	2,548	3,589	2,250	828	1,898	17,287	4,841	3,134	2,861		51,915	23,322

CONTROLLER STAFFING BY GRADE

SENATOR LAUTENBERG: Provide for the record a breakdown of controller staffing by grade level in fiscal year 1988, 1989 and projected for 1990 by personnel level and associated costs.

ANSWER: The following is a breakout of all GS-2152 air traffic controllers and GS-2154 air traffic assistants:

	FY 1988	FY 1989	FY 1990
GS-15	1,347	1,550	1,675
GS-14	6,006	6,392	6,525
GS-13	2,904	2,604	2,725
GS-12	2,979	3,162	3,225
GS-11	5,098	5,135	5,150
GS-10	1,401	1,473	1,525
GS-9	2,228	2,340	2,450
GS-7	1,482	1,975	2,000
GS-5	261	266	270

Associated costs are not available by series type, such as GS-2152 or GS-2154. The budgeting of these costs are computed at the total level and not by category of employee.

SENATOR LAUTENBERG: Provide the same breakdown level for inspectors and maintenance personnel.

ANSWER: The information for the field maintenance workforce is displayed in the following table:

Level/ Pay Plan		FY 1988 Number	FY 1988 ($000)	FY 1989 Number	FY 1989 ($000)	FY 1990 Number	FY 1990 ($000)
GM	13	597	30,742	597	32,279	597	33,409
GM	14	355	21,605	355	22,686	355	23,480
GM	15	107	7,654	107	8,037	107	8,318
GM	TOT	1,059	60,001	1,059	63,001	1,059	65,206
GS	1-5	493	8,330	618	10,968	744	13,651
GS	6-10	1,404	36,391	1,673	45,541	1,929	54,356
GS	11	1,222	47,977	1,186	48,916	1,141	48,690
GS	12	3,513	165,322	3,311	163,596	3,078	157,396
GS	13	123	6,896	121	7,115	119	7,233
GS	14	54	3,560	53	3,673	52	3,735
GS	TOT	6,809	268,476	6,963	279,809	7,063	285,061
WG	1-4	3	47	3	49	3	51
WG	5-7	26	616	26	647	26	670
WG	8	75	2,323	75	2,439	75	2,524
WG	9	24	824	24	865	24	895
WG	10	158	5,965	158	6,263	158	6,482
WG	11	432	17,974	432	18,873	432	19,534
WG	12	5	230	5	241	5	250
WG	TOT	722	27,978	722	29,377	722	30,405
WS/WL	8	5	172	5	181	5	187
WS/WL	9	11	456	11	479	11	496
WS/WL	10	29	1,339	29	1,406	29	1,456
WS/WL	11	8	414	8	435	8	450

WS/WL 12	3	165	3	174	3	180
WS/WL TOT	56	2,547	56	2,674	56	2,768
TOTAL	8,646	359,002	8,800	374,862	8,900	383,440

AVERAGE AGE AND SERVICE DATA

SENATOR LAUTENBERG: Has the Department a recent time-in-service and age analysis of its workforce? If so, when was that study done and what were the findings?

ANSWER: The Department of Transportation (DOT) publishes an annual report of statistical information on its workforce. The booklet is entitled DOT Employment Facts and was last produced with fiscal year 1988 data. At the end of FY 1988, the average age for DOT permanent employees was 41.6 and the average number of years of Federal service for DOT permanent employees was 15.3. The following is individual statistical data for each of the Department of Transportation Administrations as of September 30, 1988:

ADMINISTRATION	AVERAGE AGE	AVERAGE SERVICE
Office of the Secretary	43.2	17.5
US Coast Guard	43.3	14.0
FEDERAL AVIATION ADMINISTRATION	41.0	15.4
Federal Highways Administration	43.0	16.3
Federal Railroad Administration	47.6	14.1
St.Lawrence Seaway Development Corporation	43.9	14.9
Urban Mass Transportation Administration	43.0	16.0
National Highway Traffic Safety Administration	44.0	16.0
Research and Special Programs Administration	43.8	14.3
Office of the Inspector General	40.6	14.6
Maritime Administration	44.9	14.4
Department of Transportation	41.6	15.3

SES BONUS (AND PRESIDENTIAL RANK) RECIPIENTS

SENATOR LAUTENBERG: Provide for the record the name and amount of Senior Executive Service personnel receiving employee bonuses in fiscal year 1987, 1988 and total amounts budgeted for 1989 and 1990.

ANSWER:

FY 1987

PRESIDENTIAL RANK RECIPIENTS (FAA) Total Recipients: 2

Robert E. Whittington	$10,000 (Meritorious)
Martin T. Pozesky	10,000
Total Amount:	$20,000

SES PERFORMANCE AWARD BONUS RECIPIENTS (FAA) Total Recipients: 45

Robert E. Whittington	$ 4,250
Edward P. Faberman	4,125
Norbert A. Owens	6,400
John S. Kern	9,550
Arnold Aquilano	4,125
Dale E. McDaniel	13,225
Charles E. Weithoner	6,575

Joseph M. Del Balzo	13,600
Edwin S. Harris	15,100
Clarence R. Melugin, Jr.	6,575
Irene A. Barnett	6,400
Leland F. Page	9,550
William H. Pollard	4,250
B. Keith Potts	4,250
Leon Watkins	4,125
Wayne J. Barlow	9,825
Daniel C. Beaudette	6,400
John R. Ryan	6,400
Paul K. Bohr	6,575
Garland P. Castleberry	6,575
James S. Dillman	6,400
Michael E. Perie	4,125
James R. Etgen	4,125
Leroy A. Keith	4,125
Dana L. Scott	4,250
Franklin L. Cunningham	4,250
James E. Richardson, Jr.	4,250
Brooks C. Goldman	4,250
Michael D. Sherwin	4,125
Quentin S. Taylor	4,125
Frederick E. Gilmore	8,075
William J. McGill	4,125
Joseph W. Noonan	4,125
Edward J. Phillips	4,125
Raymond E. Ramakis	4,125
Nicholas S. Stoer	4,125
Temple Johnson	4,125
Joseph Rubino	4,125
Robert L. Goodrich	4,125
Andres G. Zellweger	4,125
Jack A. Sain	4,125
Howard R. Richardson	4,125
Monte R. Belger	3,950
Anthony Broderick	6,575
Homer C. McClure	6,575
Total Amount:	**$262,450**

FY 1988

PRESIDENTIAL RANK RECIPIENTS (FAA) Total Recipients: 7

Wayne J. Barlow	$10,000 (Meritorious)
Paul K. Bohr	10,000
John S. Kern	10,000
C. R. Melugin	10,000
Norbert A. Owens	10,000
Jack A. Sain	10,000
Donald J. Schneider	10,000
Total Amount:	**$70,000**

SES PERFORMANCE AWARD BONUS RECIPIENTS (FAA) Total Recipients: 44

Michael P. Goldfarb	$13,199
Robert E. Whittington	15,500
Joseph M. Del Balzo	6,275
Edwin S. Harris	9,225
Daniel C. Beaudette	8,975
Carolyn C. Blum	8,975

Joan W. Bauerlein	8,975
Leland F. Page	12,775
William H. Pollard	6,275
Monte R. Belger	6,100
Garland P. Castleberry	6,275
Homer C. McClure	6,275
Herbert R. McLure	6,275
Byron K. Potts	13,150
Raymond A. Salazar	8,075
Thomas E. McSweeny	6,100
Irene A. Barnett	6,100
Frederick E. Gilmore	6,100
Wayne J. Barlow	4,025
Clarence R. Melugin	4,125
Arlene I. Feldman	3,825
Benjamin Demps	4,025
Leon C. Watkins	3,900
Franklin L. Cunningham	4,025
Brooks C. Goldman	4,025
Dale E. McDaniel	3,900
James S. Dillman	3,900
Temple Johnson	3,900
Theodore R. Beckloff	3,900
Larry L. Craig	3,900
Frederick M. Isaac	3,900
Ernest M. Keeling	3,900
Daniel J. Peterson	3,900
John R. Ryan	3,900
Lowell H. Johnson	3,900
Martin T. Pozesky	3,900
Donald P. Watson	3,900
M. Craig Beard	3,900
Arnold Aquilano	3,900
Robert L. Goodrich	3,900
Dana L. Scott	4,025
James E. Richardson	4,025
John E. Turner	3,900
Alexander R. Hammond	3,900
Total Amount:	$256,924

Our FY 1989 budget estimate includes $344,700 for senior executive service employee bonuses. The FY 1990 budget includes $320,700.

FLIGHT SERVICE STATIONS

SENATOR LAUTENBERG: List the flight service stations consolidated in fiscal years 1987, 1988, 1989 and planned in 1990.

ANSWER: A list of the FSSs closed in the years 1987 through 1988, those closed through April 1989, as well as those planned for the remainder of 1989 and for 1990 are as follows.

FY 1987

Burlington, IA
Mason City, IA
Ottumwa, IA
Dodge City, KS
Emporia, KS
Goodland, KS

FY 1987 cont.

Hill City, KS
Vichy, MO
Chadron, NE
Omaha, NE
Sidney, NE
Harrisburg, PA
Danville, VA
Roanoke, VA
Chicago, IL
Indianapolis, IN
Detroit, MI
Minneapolis, MN
Columbus, OH
Augusta, ME
Houlton, ME
Concord, NH
Albany, NY
Glens Falls, NY
Massena, NY
Montpelier, VT
Watertown, NY
LaJunta, CO
Portland, OR
The Dalles, WA
Bryce Canyon, UT
Hoquiam, WA
Brunswick, GA
Valdosta, GA
Greer, SC
Memphis, TN
Lake Charles, LA
Gage, OK
Hobart, OK
Galveston, TX
Palacios, TX
Mineral Wells, TX
Paso Robles, CA
Needles, CA

FY 1988

Tonopah, NV
Manhatten, KS
Russell, KS
Salina, KS
Joplin, MO
Cape Girardeau, MO
Lincoln, NE
Ft. Wayne, IN
Jackson, MI
Saginaw, MI
Traverse City, MI
Jamestown, ND
Zanesville, OH
Houghton, MI
LaCrosse, WI
Wausau, WI
Eagle, CO
Baker, OR
Bellingham, WA
Ephrata, WA
Melbourne, FL
Albany, GA
Myrtle Beach, SC
Alexandria, LA
College Station, TX
Abilene, TX
Childress, TX
Montague, CA
Blythe, CA
Daggett, CA
Lovelock, NV
Chanute, KS
Wilkes-Barre, PA

FY 1989 (Through April)

Decatur, IL
Grand Island, NE
North Platte, NE
Cincinnati, OH
Monroe, LA
Dalhart, TX
Imperial, CA
Trinidad, CO
Dickinson, ND
Pelston, MI
Dyersburg, TN
Lubbock, TX
Ponca City, OK
Florence, SC

BALANCE OF FY 1989 (May Through September)

South Bend, IN
Rochester, MN
Minot, ND
Findlay, OH
Eau Claire, WI
Lebanon, NH
Ft. Myers, FL
Vero Beach, FL
Lufkin, TX
Wichita Falls, TX
Thermal, CA

FY 1990

Cedar Rapids, IA
Garden City, KS
Springfield, MO
Decatur, IL
Scotts Bluff, NE
Teterboro, NJ
Pittsburgh, PA
Philadelphia, PA
Rockford, IL
Alexandria, MN
Hibbing, MN
Redwood Falls, MN
Marquette, MI
North Bend, OR
Wenatchee, WA
Orlando, FL
Savannah, GA
Charleston, SC
Shreveport, LA
Tulsa, OK
Amarillo, TX
Dallas, TX
Elko, NV

HUB MANAGEMENT

SENATOR LAUTENBERG: What is "hub management"?

ANSWER: The hub management concept combines several facilities within a local geographical area which designates a central facility as the hub. The manger of the hub becomes the focal point for the "hubbed" facilities. The benefits of this concept are it provides liaison for small facilities to regions as well as training, secretarial, and other additional support to smaller facilities.

CENTER EMPLOYMENT

SENATOR LAUTENBERG: For the record, provide the employment levels for each of the centers for fiscal 1988, 1989, and projected for 1990.

ANSWER: The following list depict the employment levels for each center for FY 1988, FY 1989, and FY 1990:

	FY 1988	FY 1989	FY 1990
ANCHORAGE	209	226	211
KANSAS CITY	507	478	532
WASHINGTON	510	546	563
NEW YORK	416	430	459
CHICAGO	560	565	565
INDIANAPOLIS	432	476	476
MINNEAPOLIS	405	385	385
CLEVELAND	558	575	575
BOSTON	382	449	449
DENVER	432	438	474
SALT LAKE	257	264	272
SEATTLE	316	320	350
JACKSONVILLE	419	414	437
MIAMI	351	385	382
MEMPHIS	405	434	419
SAN JUAN	95	100	110
ATLANTA	570	572	543
ALBUQUERQUE	398	425	434
FORT WORTH	481	528	543
HOUSTON	445	477	486
HONOLULU	100	107	111
LOS ANGELES	400	422	444
OAKLAND	374	387	407
GUAM	14	18	18

TOTAL TRAINING COSTS

SENATOR LAUTENBERG: What are the total training costs requested for 1990? How does this compare with 1989?

ANSWER: This budget includes a total centralized training program of $188,940,000, contrasted to $139,750,000 in FY 1989. The increase of $49,190,000 is needed to restore operational training capability--i.e., provide an increased level of training to our employees--as well as to begin a delayed, but much needed, overhaul of the FAA training system.

Comprehensive, independent studies completed last year confirmed the need for significant and fundamental changes in the way in which FAA employees are trained. We need to train our people better, faster, and cheaper. To do so, our entire training program must be

redesigned.

This is a massive undertaking. We must start now, however, if we are to be able to meet the training challenges on the near horizon.

The urgency of the requirement emanates from two primary drivers. First, much of our workforce is eligible to retire. We are bringing in new people, but they require a great deal of training if they are to adequately replace a seasoned, skilled workforce. Second, the new NAS Plan technology is arriving and will continue to arrive over the next several years. This represents an immense retraining requirement for FAA.

The training system of the future, charted in the Agency's published Flight Plan for Training, will be based on cognitive task analysis and other advanced principles of educational psychology and adult education. The fully integrated application of instructional technology, especially advanced simulation, will permit us to train to proficiency much more efficiently.

These initiatives will be expensive and the efficiency-produced savings will not begin to accrue for several years. But we cannot afford to delay the start of this initiative program. The FAA training system is far too cumbersome and costly--embarrassingly so. Today's training problem may truly be tomorrow's safety problem. We are convinced that we must garner our collective resources now to implant the training system demanded by the future.

TRAINING COSTS

SENATOR LAUTENBERG: Where and how does the agency incur its training costs? (What functional areas, what specialties, etc.)

ANSWER: In FY 1988, FAA training costs were incurred as follows:

Training Program	Dollars in Thousands
Air Traffic	44,358
Airway Facilities	25,749
Aviation Standards	23,650
Airports	331
Logistics	491
Management and General	4,807
Program Direction and Management	16,413
Training Program Total	115,799

Program Direction and Management includes Washington Headquarters, region, center, and Academy staffs which manage the centralized training program. It also includes approximately $3.5 million for the funding of NAS Plan new equipment training contracts and training of Washington Headquarters personnel for all activities.

Approximately 74% of FAA's training budget is allocated to the FAA Academy and the Transportation Safety Institute located at the Mike Monroney Aeronautical Center located in Oklahoma City and the Center for Management Development located in Palm Coast, Florida. The balance (26%) of the training budget is allocated to FAA's regions, centers, and Washington Headquarters.

SENATOR LAUTENBERG: What is the status of the agency's computer system known as "OATS"?

ANSWER: The final revised Request for Proposals (REP) for the Office Automation, Technology and Services (OATS) Procurement was issued on November 125, 1988. The technical proposals for the OATS solicitation were received on December 30, 1988; the cost and business management proposals were received January 24, 1989. Evaluation of the proposals is being conducted and contract award is scheduled for August 1989.

SENATOR LAUTENBERG: What are the costs associated with "OATS"?

ANSWER: The minimum dollar limitation which will be obligated at the time of contract award is $18.5 million. The maximum order limitation is estimated at $853.5 million. This contract will cover an initial 3 year period with five 1-year renewable options.

CONTROLLER STAFFING

OPERATIONS

SENATOR LAUTENBERG: Aeronautical charting costs increase by 17 percent over 1989. Why?

ANSWER: Several new products and services have been added to the charting program in recent years. Once implemented, these products must be updated to keep them current. Examples of new products requiring updates are as follows:

- New Minimum Safe Altitude Warning (MSAW) digital terrain maps for 119 Automated Radar Terminal Systems (ARTSII) were added in 1988.
- 9 new terminal area charts are scheduled for 1988 and 1989. Each will be updated twice a year.
- New helicopter charts have recently been added. These will be updated as needed - probably once a year.

The increase is also needed to implement and then maintain National Airspace Review (NAR) recommendations designed to improve the quality and readability of our charting products. Examples are as follows:

- Combining all terminal instrument procedures into one wire-bound terminal publication. These publications, Standard Instrument Approach Procedures, Standard Instrument Departures and Standard Terminal Arrivals are currently published in 3 different bound volumes.
- Converting all Enroute Low Altitude Charts from 2 to 4 colors. This NAR recommendation improves the chart's readability and thus increases air safety.

The increase will provide charting support for the Digital Bright Radar Indicator Tower Equipment (DBRITE) program. As terminal radar video maps are converted to a digital format for the DBRITE program, an increase in funding is required to provide the necessary updates for this new system.

Increased funding is required to finish the construction of new terminal area charts for the Memphis, Salt Lake City, Phoenix, Houston Hobby, Dulles, Baltimore, Orlando and Tampa terminal control areas.

The 17 percent increase will also allow the FAA to begin converting all aeronautical charts and data bases to the new, more accurate North American Datum of 1983. This is required to make aeronautical charts and related FAA data bases compatible with those of foreign governments, the military, private industry, and other U.S. Government Agencies.

ORGANIZATIONAL CHART

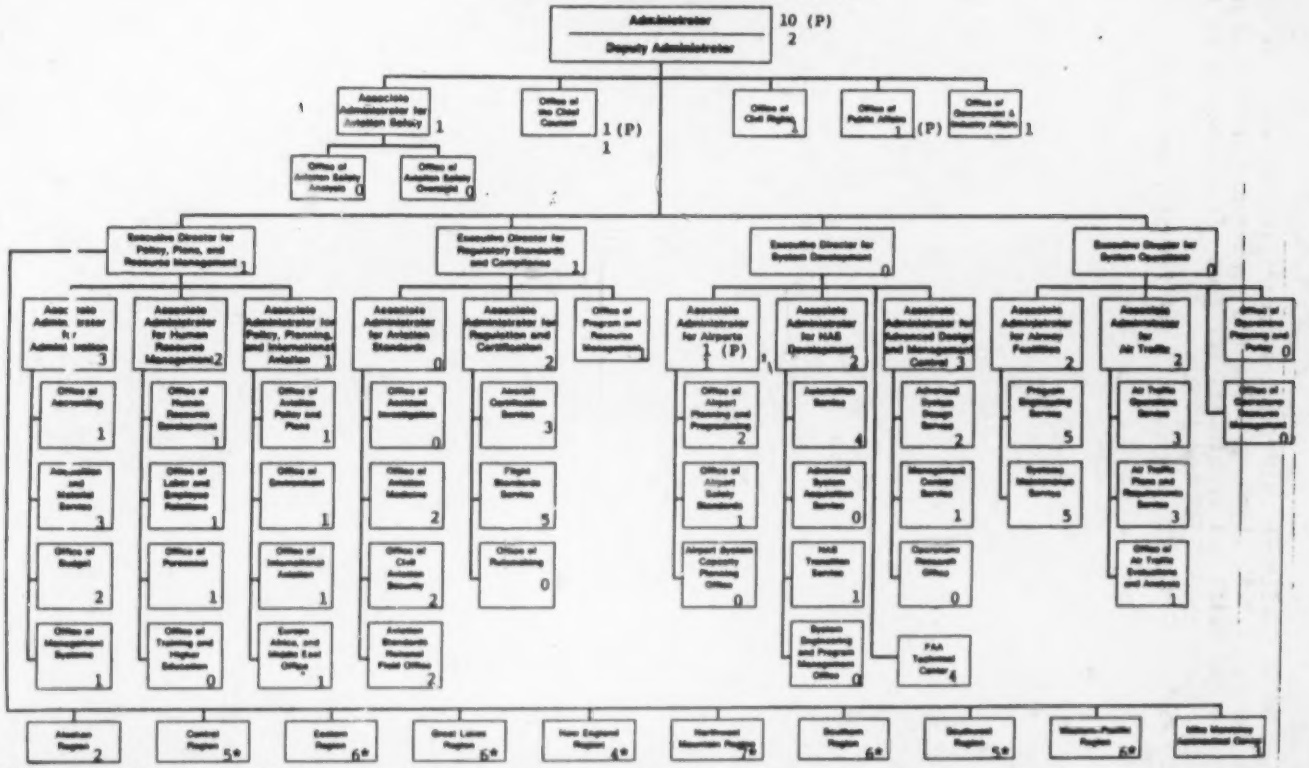
SENATOR LAUTENBERG: Using the organizational chart on page 1 of the budget justification, provide the number of Senior Executive Service and political appointees for each office and region for fiscal years 1988, 1989 and 1990.

ANSWER: Organizational charts for fiscal years 1988, 1989 and 1990 follow:

FY-1988 (POLITICAL APPOINTEES AND SES)

U.S. Department of Transportation

FEDERAL AVIATION ADMINISTRATION

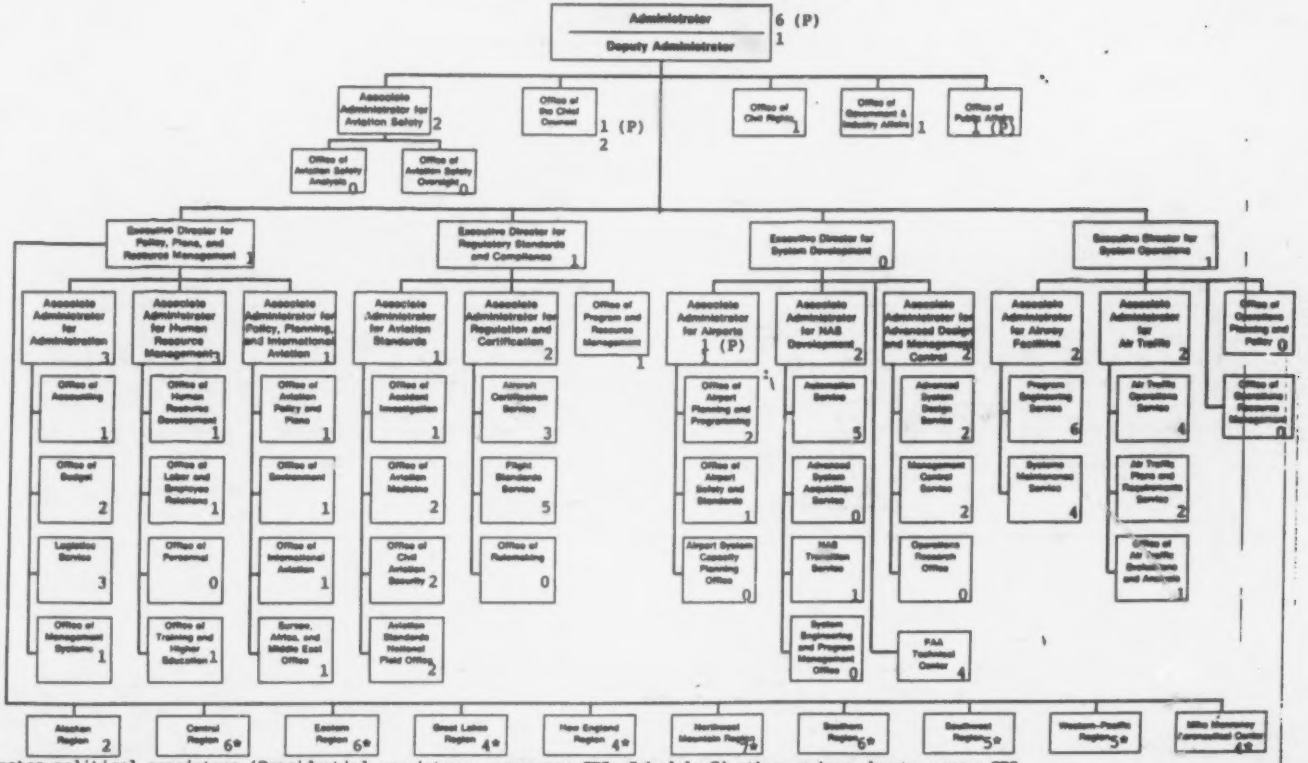


(P) - denotes political appointees (Presidential appointees, noncareer SES, Schedule C) other numbers denote career SES.

*NOTE: In the regions with SES managers for Air Traffic, Airway Facilities, Flight Standards, Aircraft Certification and Airports, they report directly to their respective Associate Administrators.

FY -1989 (POLITICAL APPOINTEES AND SES)
U.S. Department of Transportation

FEDERAL AVIATION ADMINISTRATION


Administrator 6 (P)
Deputy Administrator 1
Associate Administrator for Aviation Safety 2
Office of Aviation Safety Analysis 0
Office of Aviation Safety Oversight 0
Office of the Chief Counsel 1 (P) 2
Office of Civil Rights 1
Office of Government & Industry Affairs 1
Office of Public Affairs 1 (P)
Executive Director for Policy, Plans, and Resource Management 1
Executive Director for Regulatory Standards and Compliance 1
Executive Director for System Development 0
Executive Director for System Operations 1
Associate Administrator for Administration 1
Office of Accounting 1
Office of Budget 2
Logistics Service 3
Office of Management Systems 1
Associate Administrator for Human Resource Management 1
Office of Human Resource Development 1
Office of Labor and Employee Relations 1
Office of Personnel 0
Office of Training and Higher Education 1
Associate Administrator for Policy, Planning, and International Aviation 1
Office of Aviation Policy and Plans 1
Office of Environment 1
Office of International Aviation 1
Europe, Africa, and Middle East Office 1
Associate Administrator for Aviation Standards 1
Office of Accident Investigation 1
Office of Aviation Medicine 2
Office of Civil Aviation Security 2
Aviation Standards National Field Office 2
Associate Administrator for Regulation and Certification 2
Aircraft Certification Service 3
Flight Standards Service 5
Office of Rulemaking 0
Office of Program and Resource Management 1
Associate Administrator for Airports 1 (P) 1
Office of Airport Planning and Programming 2
Office of Airport Safety and Standards 1
Airport System Capacity Planning Office 0
Associate Administrator for NAS Development 2
Automation Service 5
Advanced System Acquisition Service 0
NAS Transition Service 1
System Engineering and Program Management Office 0
Associate Administrator for Advanced Design and Management Control 2
Advanced System Design Service 2
Management Control Service 2
Operations Research Office 0
FAA Technical Center 4
Associate Administrator for Airway Facilities 2
Program Engineering Service 6
Systems Maintenance Service 4
Associate Administrator for Air Traffic 2
Air Traffic Operations Service 4
Air Traffic Plans and Requirements Service 2
Office of Air Traffic Evaluations and Analysis 1
Office of Operations Planning and Policy 0
Office of Systems Engineering Management 0
Alaskan Region 2
Central Region 6*
Eastern Region 6*
Great Lakes Region 4*
New England Region 4*
Northwest Mountain Region 7*
Southern Region 6*
Southwest Region 5*
Western-Pacific Region 5*
Mike Monroney Aeronautical Center 4*

(P) - denotes political appointees (Presidential appointees, noncareer SES, Schedule C) other numbers denote career SES.

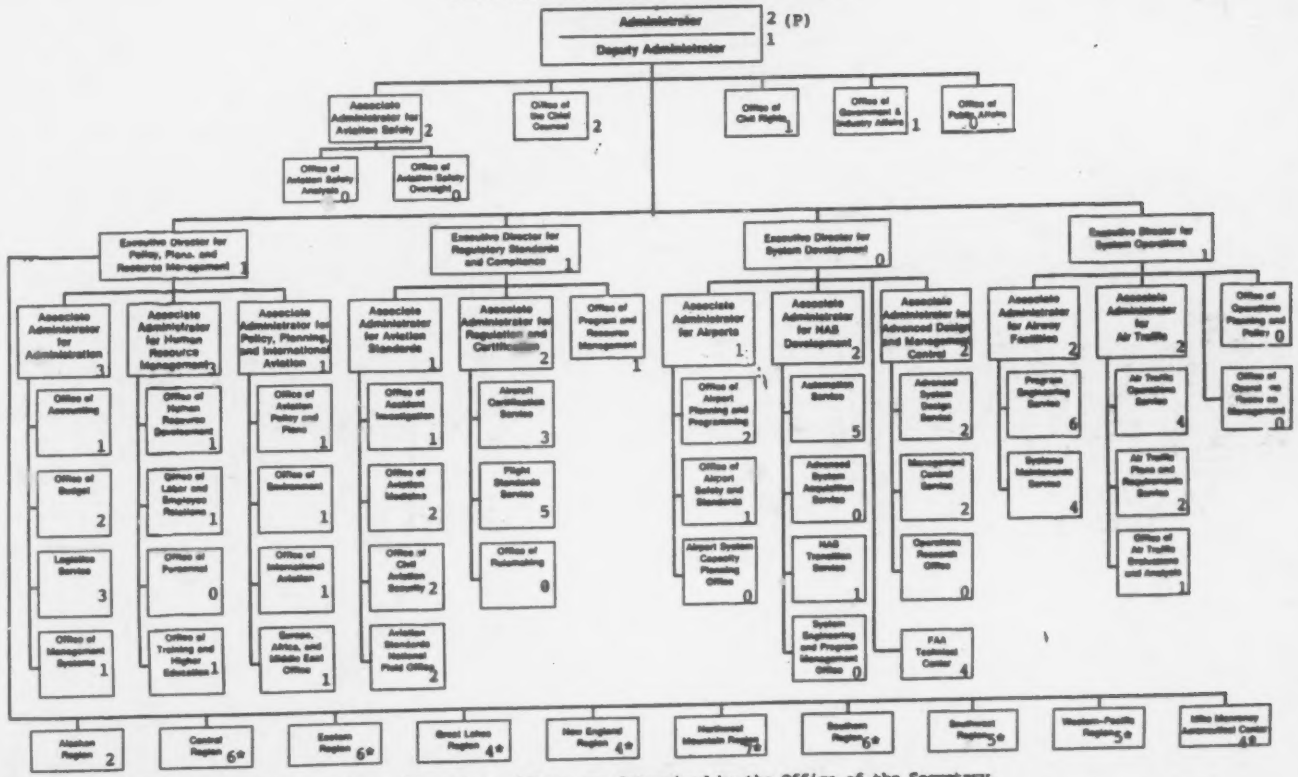
*NOTE: In the regions with SES managers for Air Traffic, Airway Facilities, Flight Standards, Aircraft Certification and Airports, they report directly to their respective Associate Administrators.

3/23/89

FY-1990 (POLITICAL APPOINTEES AND SES)

U.S. Department of Transportation

FEDERAL AVIATION ADMINISTRATION


Administrator 2 (P)
Deputy Administrator 1
Associate Administrator for Aviation Safety 2
Office of the Chief Counsel 2
Office of Civil Rights 1
Office of Government & Industry Affairs 1
Office of Public Affairs 0
Office of Aviation Safety Analysis 0
Office of Aviation Safety Oversight 0
Executive Director for Policy, Plans, and Resource Management 1
Executive Director for Regulatory Standards and Compliance 1
Executive Director for System Development 0
Executive Director for System Operations 1
Associate Administrator for Administration 1
Office of Accounting 1
Office of Budget 2
Logistics Service 3
Office of Management Systems 1
Associate Administrator for Human Resource Management 1
Office of Human Resource Development 1
Office of Labor and Employee Relations 1
Office of Personnel 0
Office of Training and Higher Education 1
Associate Administrator for Policy, Planning, and International Aviation 1
Office of Aviation Policy and Plans 1
Office of Environment 1
Office of International Aviation 1
Europe, Africa, and Middle East Office 1
Associate Administrator for Aviation Standards 1
Office of Accident Investigation 1
Office of Aviation Medicine 2
Office of Civil Aviation Security 2
Aviation Standards National Field Offices 2
Associate Administrator for Regulation and Certification 2
Aircraft Certification Service 3
Flight Standards Service 5
Office of Rulemaking 0
Office of Program and Resource Management 1
Associate Administrator for Airports 1
Office of Airport Planning and Programming 2
Office of Airport Safety and Standards 1
Airport System Capacity Planning Office 0
Associate Administrator for NAS Development 2
Automation Service 5
Advanced System Architecture Service 0
NAS Transition Service 1
System Engineering and Program Management Office 0
Associate Administrator for Advanced Design and Management Control 2
Advanced System Design Service 2
Management Control Service 2
Operations Research Office 0
FAA Technical Center 4
Associate Administrator for Airway Facilities 2
Program Engineering Service 6
Systems Maintenance Service 4
Associate Administrator for Air Traffic 2
Air Traffic Operations Service 4
Air Traffic Plans and Requirements Service 2
Office of Air Traffic Evaluations and Analysis 1
Office of Operations Planning and Policy 0
Office of Commercial Space Transportation 0
Alaskan Region 2
Central Region 6*
Eastern Region 6*
Great Lakes Region 4*
New England Region 4*
Northwest Mountain Region 7*
Southern Region 6*
Southwest Region 5*
Western-Pacific Region 5*
Mike Monroney Aeronautical Center 4*

(P) - denotes Presidential appointees. Other political appointees are determined by the Office of the Secretary.

*NOTE: In the regions with SES managers for Air Traffic, Airway Facilities, Flight Standards, Aircraft Certification and Airports, they report directly to their respective Associate Administrators.

ORGANIZATION COSTS

SENATOR LAUTENBERG: What did the organization change cost, i.e., new associate administrators, centralization by subject, new executive directors, etc.?

ANSWER: As with any major reorganization or realignment of a large agency or large corporation there are certain unavoidable costs. FAA has accommodated these costs within its budget in FY 1988 and FY 1989. To provide administrative and program direction, FAA has reprogrammed approximately 75 positions in Headquarters to staff the offices of the four Executive Directors, the Office of Operations Resource Management, the Office of Operations Planning and Policy, and to build up the budget and program oversight staffs in several Associate Administrators' offices where there have been expanded programs. The management of the Facilities and Equipment program has been divided among several Associate Administrators to improve the span of control in the FAA's complex capital modernization program. At an average salary and benefits of approximately $60,000, the recurring cost of these positions is $4.5 million, plus travel and office space costs. In addition, approximately $1.0 to 1.4 million of permanent change of station costs were incurred in FY 1988 and early FY 1989 associated with these jobs. Certain start up costs for furniture, workstations, and similar housekeeping costs have been incurred.

Programmatically, straightlining also calls for the strengthening of program direction functions in aviation standards, certification, security, air traffic control and airways facilities programs. There will be some concentration of program specialists in these organizations at Washington headquarters to provide more centralized and standardized guidance to FAA field operations.

SENATOR LAUTENBERG: What is your current employment by identified office onthe organizaiton chart and projected by end of fiscal year 1990?

ANSWER: The information is provided in the following chart:

FAA DISTRIBUTION OF EMPLOYMENT
(DIRECT - FULL TIME PERMANENT)

Office	FY 1989	FY 1990
ADMINISTRATOR	52	52
A) Associate Administrator for Aviation Safety.....	0	60
Office of Aviation Safety Analysis.....	59	0
B) Office of the Chief Counsel.....	107	131
C) Office of Civil Rights.....	13	14

D) Office of Public Affairs.....	31	31
E) Office of Government & Industry Affairs.....	13	14
1. Executive Director for Policy, Plans, & Resource Management.....	5	5
A) Associate Administrator for Administration.....	8	8
1) Office Of Accounting.....	65	66
2) Acquis & Materiel Service.....	273	355
3) Office of Budget.....	52	52
4) Office Of Mgmt Systems.....	96	97
B) Associate Administrator for Human Resource Management.....	205	358
C) Associate Administrator for Policy, Planning & International Aviation.....	167	124
Europe, Africa and Middle East Office.....	0	76
Alaskan Region.....	1,352	1,429
Central Region.....	2,702	2,796
Eastern Region.....	5,422	5,586
Great Lakes Region.....	6,701	7,024
New England Region.....	1,946	2,021
Northwest Mountain Region.....	4,292	4,491
Southern Region.....	7,876	8,289
Southwest Region.....	5,546	5,743
Western-Pacific Region.....	5,575	5,822
Aeronautical Center.....	1,997	2,051

2. Executive Director For Regulatory Standards and Compliance.....	5	5
A) Associate Administrator for Aviation Standards.....	5	5
1) Office of Aviation Medicine....	46	50
2) Office of Civil Aviation Security.....	105	110
3) Aviation Standards National Field Office.....	949	971
B) Associate Administrator for Regulation and Certification.....	3	3
1) Office of Airworthiness....	97	106
2) Office of Flight Standards....	259	284
3) Office of Rulemaking....	51	55
C) Office of Programs and Resource Management.....	54	58
3. Executive Director For Systems Development.....	5	5
A) Associate Administrator for Airports	83	97
B) Associate Administrator for NAS Development.....	254	292
C) Associate Administrator for Adv. Design & Management Control..	92	98
FAA Technical Center.....	967	1,138
4. Executive Director For Systems Operations.....	5	5
Office of Operations Resource Mgmt...	8	8
Office of Operations Planning & Policy	8	8
A) Associate Administrator for Airway Facilities.....	290	303
B) Associate Administrator for Air Traffic.....	435	500
TOTAL:	48,271	50,792

NOTE: The estimated distribution by office is in state of flux as organizational adjustments are being fully implemented.

HEADQUARTERS ADMINISTRATION

SENATOR LAUTENBERG: What is the total being spent for the Aviation Education Program in FY 1989, and requested for FY 1990.

ANSWER: Because of budget deficiencies in our program over the last several fiscal years, we have been unable to establish a base figure for the Aviation Education Program again in FY 1989. Therefore, we have spent less than $25,000 in program funds to keep the program functioning in accordance with the Public Law. We have received a base line of $150.9K for FY 1990 and we anticipate receiving the necessary allocations in FY 1990 and beyond to meet the Congressionally-established program objectives.

SENATOR LAUTENBERG: How are these funds spent?

ANSWER: In FY 1989 our expenditures are in the following areas:

- o Contract for Curriculum Development
- o Contract for Aviation Careers Guide
- o Recognition Certificates & Plaques
- o Educational Exhibit at Teacher Conferences
- o Video Program for Teacher Training
- o Publications & Productions for Special Events

SENATOR LAUTENBERG: Why the $568,000 requested increase?

ANSWER: To accomplish the program objectives it is necessary to establish a program initiative within each region and center. The majority of the increase is dedicated to this principal requirement. We will assign one person within each of the facilities to direct the program within their respective regions who will serve as a liaison and assist each of the states in the region with their aviation education programs. Funds will be spent in two general categories:

2. Aviation Programs for Schools: - These programs are designed to provide materials to the educational community for use in the classroom as curriculum development or for educational enrichment activities. They include:

- o Aviation Science Computer Diskettes for Schools
- o International Science & Engineering Fair Awards
- o Teacher Education Workshops and Conferences
- o Aviation Curriculum Guides for Schools
- o Aviation Careers Publications for Students
- o Aviation Education Resource Centers for Teachers
- o Videotapes for Teachers and School Administrators

1. Aviation Awareness Programs for the Public - These programs are designed to respond to requests from the general public for general information regarding aviation in our society. This includes such programs as:

- o Awareness Exhibits at Airshows & Trade Expositions
- o Awards for Excellence in Aviation Education
- o International Aviation Art Awards for Youth
- o Workshops for Volunteer Aviation Education Counselors
- o Partnerships-In-Education Programs
- o Sponsorship of National Congress on Aviation & Space
- o Printed Materials, Videotapes, and Satellite Distribution

SENATOR LAUTENBERG: For the record, provide the travel records for all overseas travel, amount spent, persons who traveled, reason, and dates.

ANSWER: The information is provided in the following chart. Additional information regarding foreign travel in the areas of inspection and federal air marshals will be provided under separate cover as soon as possible.

[CLERK'S NOTE: Due to its length, the FAA foreign travel report (from October 1988 through June 1989) will not be printed in the hearing record but will be available for review from the subcommittee office.]

[The chart follows:]

AIA FOREIGN TRAVEL REPORT

FISCAL YEAR 1989

NAME OF TRAVELER	PURPOSE OF TRIP	DESTINATION(S)	COST	TRAVEL DATES FROM	TO
MESSIER, T., AIA-1	Meet with DGCA's in Spain and Singapore; attend DGCA conf in Christchurch; participate in Australian Airshow, attend JCAA ATC function; assess China's NAS plan and stopover at AWP for debriefing	Spain, Singapore, New Zealand, Australia, Tokyo	8,329.77	10/2/88	10/21/88
ARCHILLA, J., AIA-200	Attend ICAO Trainair Workshop	Montreal, Canada	674.52	10/7/88	10/20/88
LARGAY, A., AIA-110	Attend Shanghai Airshow	Shanghai, China	6,332.88	11/30/88	12/13/88
McCABE, F., AIA-100	Attend Shanghai Airshow	Shanghai, China	5,411.93	11/30/88	12/13/88
MESSIER, T., AIA-1	Accompany FAA Administrator and serve as Int'l Specialist on FAA concerns in the Far East	Beijing, Singapore, Shanghai, China	5,101.28	11/26/88	12/14/88
HOBBS, D., AIA-110	Accompany the Administrator and serve as primary logistical support person	Shanghai, China	4,968.64	11/26/88	12/10/88
McMAHON, J., AIA-110	Manage Australian Airshow and New Zealand DGCA Meeting	Australia, New Zealand	6,063.45	10/1/88	10/18/88
MESSIER, T., AIA-1	Attend AEU/CAAG Mtg.; visit Eurocontrol and Copenhagen Centers; meet with Iceland aviation officials	Brussels, Denmark, Iceland	3,758.87	2/4/89	2/17/89

NAME OF TRAVELER	PURPOSE OF TRIP	DESTINATION(S)	COST	TRAVEL DATES FROM	TO
ARCHILLA, J., AIA-200	To negotiate MOA with SENEAM and AmEmbassy officials	Mexico City	873.00	1/23/89	1/27/89
O'NEILL, COL., AIA-101	Attend conf on safety measures for civil aircraft in areas of conflict.	Montreal, Canada	378.60	1/26/89	1/27/89
LARGAY, A., AIA-110	Inspect FAA Paris Airshow booth	Paris, France	1,671.69	2/20/89	2/25/89
McCABE, F., AIA-100	Deliver package on Independent Air crash to Secretary Skinner	Montreal, Canada	508.26	2/14/89	2/15/89
O'NEILL, COL., AIA-101	Attend conf on civil military/ coordination and safety	Montreal, Canada	378.60	3/12/89	3/15/89
DeCARME, D., AIA-120	Attend conf on Future Air Navigation Systems Planning	Paris, France	2,102.00	4/13/89	4/19/89
MESSIER, T., AIA-1	Followup mtgs with National Civil Aviation Authorities on provision of FAA technical assistance	Turkey, India, Pakistan, Philippines	5,257.00	4/15/89	5/2/89
ARCHILLA, J., AIA-200 SANDERS, S., AIA-220	Participate in Annual Program Review	Montreal, Canada	740.65 740.65	5/1/89	5/3/89
O'NEILL, COL., AIA-101	Attend conf on civil military/ coordination and safety	Montreal, Canada	1,067.63	4/30/89	5/6/89
LAIRD, F., AIA-120	Serve as FAA representative to the Antarctic Airspace Experts Mtg.	Paris, France	1,935.00	4/29/89	5/6/89
PROFFITT, R., AIA-130	Familiarization visit to ICAO	Montreal, Canada	746.60	5/1/89	5/3/89

SENATOR LAUTENBERG: Break down the costs associated with headquarters computers and information systems.

ANSWER: The headquarters computers are not funded under the headquarters appropriation. This is due to the fact that they serve to support national management information systems requirements. Therefore, they are funded under the Operations appropriation and represent cost of approximately $6 million annually which consists of contract technical support, operations and maintenance. Since all of the computers in headquarters are government owned, there are no rental or capital costs incurred.

SENATOR LAUTENBERG: What is the Information Resources Management Plan?

ANSWER: The Information Resources Management Plan (IRMP) is FAA's plan for managing and improving automated management and administrative information systems, common processing resources, and office automation technology. The IRMP currently consists of two volumes. Volume one provides a strategic overview of policies, goals, and approaches that will be used to guide the development, implementation, and support of information resources throughout the Agency over the next several years. Volume two is the information resources systems plan which includes descriptions of specific projects and on-going systems which support the strategic goals included in volume one.

AIRCRAFT PURCHASE LOAN GUARANTEE PROGRAM

SENATOR LAUTENBERG: How many defaults have you had to date under this program and what is the total amount you have paid as a result of these defaults?

ANSWER: Eleven airlines have defaulted on twenty-two loans. As of May 1, 1989, expenditures totalled $181.4 million for the defaults. Miscellaneous default expenditures totalling about $50,000 are expected for the remainder of FY 1989.

SENATOR LAUTENBERG: How much has the Government recovered in these situations, i.e., defaulted loans?

ANSWER: As of May 1, 1989, the Government had recovered $130.2 million.

SENATOR LAUTENBERG: What is your responsibility with respect to disposing of the aircraft when a loan is defaulted?

ANSWER: The FAA's primary responsibility with respect to the collateral for a loan is to dispose of it in a manner which maximizes recovery of the costs which the Federal Government incurred in settlement of the loan. The FAA has accomplished this responsibility by selling collateral to private sector firms through bid solicitation, by using aircraft brokers and through direct negotiation with interested parties. The FAA has also transferred collateral to other Federal Government agencies for their own use.

SENATOR LAUTENBERG: You currently have borrowing authority for FY 1989 of $50 million. How much of this authority have you used to date?

ANSWER: Approximately $1 million.

SENATOR LAUTENBERG: Why do you need an additional $57 million of borrowing authority in fiscal year 1990? The estimated contingent liability at the end of 1990 is about $73 million--do you

expect that most of these loans will be defaulted?

ANSWER: At the time the budget was prepared a "worst case" estimate of loan defaults was used. We now do not expect defaults of this magnitude to occur. As you know, the authority to borrow is only used in the event of an actual loan default.

SENATOR LAUTENBERG: Would you provide for the record a listing of outstanding guarantees showing the company, amount, type of aircraft, creditor, and interest rate?

ANSWER: This information is contained in the attached table.

Aircraft Loan Guarantee Program
Status at May 1, 1989

Airline	Guaranteed Loan Balance	Type of Aircraft	Creditor	Interest Rate
Air Midwest	$995,000	Metro II (1)	Ohio National Life Insurance Co.	12.75%
Air Midwest	1,495,000	Metro II (1)	First Tennessee Bank	Variable
Chapparral	1,635,100	Gulfstream (1)	Western & Southern Life Ass. Co.	11.00%
Hawaiian	25,994,700	DC-9-81 (4)	State of Washington	13.75%
Midway	5,427,000	Escrowed Cash	Continental Bank	Variable
Tennessee	64,254	Embraer 110 (1)	Banco Real	7.75%
USAir				
Piedmont	12,525,100	Boeing 737 (3)	State of Washington	11.125%
PSA	7,702,500	DC-9-80 (1)	U.S. Trust Co. of New York	11.67%
PSA	19,884,150	DC-9-80 (3)	U.S. Trust Co. of New York	11.75%
PSA	13,356,700	DC-9-80 (2)	Bankers Trust Co. of New York	15.90%
Suburban	473,100	Shorts 330 (2)	Western & Southern Life Ass. Co.	10.00%
	$89,552,604			

PRIVATE SECTOR RESPONSIBILITY VS. GOVERNMENT RESPONSIBILITIES

SENATOR LAUTENBERG: The Administration has apparently decided that procurement and placement of costly equipment like TNA machines are the responsibility of the private sector. This is seen by many as a significant policy decision.

If there is indeed a policy decision, how far does it go? Is the private sector to be responsible for:

- hiring security police?
- developing, assuring quality of technology?
- screening passengers, enforcing regulations?

How far does their responsibility go in assessing and countering threats?

ANSWER: The costs of most security measures--the purchase of security equipment, the hiring of security police and the screening of passengers--has always been the responsibility of the airports and air carriers, because it is an integral part of the service they offer. On the other hand the conduct of high cost, high risk research in the security area, where the return may be limited, has always been the responsibility of the government. Similarly, the responsibility to acquire intelligence information, most of which comes from other nations, and the assessment of it, is a government responsibility. If threat information is received, it is passed on to the carriers with FAA's assessment of that information. It is the carriers' responsibility to make sure that the flight operates with complete safety, although if there should be any creditable threat to a specific U.S. airline flight that the FAA believes cannot be countered by security measures, the FAA would strongly advise, or even require, the airline to cancel that flight if it had not already done so.

SENATOR LAUTENBERG: Was the decision to have the airlines buy the TNA or comparable equipment made in consultation with other agencies? Did OMB influence this decision?

ANSWER: The decision was essentially made in the Department of Transportation; OMB was consulted.

SENATOR LAUTENBERG: FAA has numerous functions: aircraft worthiness ... air traffic control ... airport improvement program. In light of all the other vital functions at FAA, how can security be a priority?

ANSWER: Security of those travelling in air commerce will always remain a high priority with the FAA as long as the threat of international terrorism pervades society and leads to tragedies such as the TWA Flight 847 hijacking in June 1985 and the terrorist bombing of Pan Am Flight 103 in December 1988.

SENATOR LAUTENBERG: By contrast, the FBI, CIA, and other intelligence and counter-terrorism agencies have thousands of people devoted to intelligence gathering and law enforcement. Why shouldn't counter-terrorism, when it comes to aviation, be part of their responsibilities?

ANSWER: Counter-terrorism, when it comes to aviation, is part of the responsibilities of all U.S. intelligence and counter-terrorism agencies as the FAA has no intelligence gathering or counter-terrorism functions or responsibilities. The FAA conducts liaison with all appropriate U.S. intelligence and counter-terrorism agencies to obtain all available information pertinent to civil aviation and then uses that information in the development and

management of the civil aviation security program for U.S. air carriers and U.S. airports. Actual counter-terrorist actions will be conducted by the appropriate U.S. agency charged with that mission and the FAA intends to fully support these agencies.

SENATOR LAUTENBERG: Has this been discussed with the FBI or other agencies?

ANSWER: We have discussed these issues with all concerned U.S. agencies, including the FBI, and there appears to be no disagreement among the pertinent agencies.

SECURITY BULLETINS

SENATOR LAUTENBERG: What happens if FAA feels an airline doesn't do enough? Fines? Cancel flights? Suspend operating certificate?

ANSWER: The FAA is initiating rulemaking action to make FAA Security Bulletins mandatory and require U.S. air carriers to comply with security measures prescribed in the bulletins. After the rulemaking action is completed, the FAA could take the full range of enforcement actions against a U.S. air carrier that is available for violations of the Federal Aviation Regulations. This could include civil penalties (fines) and certificate action - such as suspension of an operating certificate. In the meantime, the FAA would recommend to the air carrier that a flight be cancelled if we believed security measures were insufficient to counter a particular threat. If the carrier refused to cancel the flight, the FAA would not hesitate to order the carrier to do so.

SENATOR LAUTENBERG: What would happen if the U.S. feels a foreign-flag carrier isn't doing enough?

ANSWER: Within the United States all foreign-flag air carriers must comply with the requirements of Federal Aviation Regulations (FAR) Part 129, Operations of Foreign Air Carriers, and the FAA continually monitors all air carriers within the U.S., domestic and foreign, to ensure compliance with security procedures. The FAA recently modified FAR Part 129 to require that the security programs of all foreign air carriers operating in the U.S. be provided to the FAA. As a general rule, however, foreign-flag air carriers outside of the U.S. do not receive FAA Security Bulletins. If the FAA believes that a foreign air carrier is not adequately responding to what we perceive as a serious threat outside of the U.S., we would work with the Department of State to ensure appropriate adjustments are made to counter the threat.

SENATOR LAUTENBERG: Is there any means of flagging security bulletins, to note, right off the bat, that this one is top priority? Is it a matter of the recipient reading it, coming to his/her own conclusion about the urgency of the bulletin?

ANSWER: The FAA recently instituted a procedure of dividing security and threat information provided to U.S. air carriers into two distinct categories. One form, called an FAA Information Circular, provides U.S. air carriers with information that is not an immediate threat nor does it require actions on the part of the air carrier. We have then modified the format and wording of the actual FAA Security Bulletin so that when U.S. air carriers receive these, they know that this is an urgent matter, they must respond to it immediately, and the FAA will closely monitor their compliance with the actions required by the security bulletin. We have been doing

this for some months now and all U.S. air carriers are fully aware that when they receive an FAA Security Bulletin that they must take certain immediate actions, report their actions to the FAA, and that the FAA will be closely monitoring their compliance.

SECURITY BUDGET

SENATOR LAUTENBERG: In January, the Administrator was advised by the manufacturer of the thermal neutron devices that they could build and deploy explosive detection systems at the rate of 50 to 100 per year beginning in 1990. What are your plans for the installation of these systems--do you intend to require the installation of this system or some other system (if there is any) with similar capabilities at the critical domestic and international airports?

ANSWER: On April 3, the Secretary of Transportation announced a number of aviation security initiatives to ensure protection of travelers in air transportation. The FAA will initiate rulemaking to require the deployment of explosives detection systems such as TNA at the busiest airports in the United States and overseas where U.S. air carriers operate.

SENATOR LAUTENBERG: What do thermal neutron devices cost, how many do you believe would be required to have an effective bomb detection program, and how would you propose that the airlines finance these?

ANSWER: The contractor estimates that a complete unit will be about $850,000 to $1,000,000. The FAA will be conducting an airport-by-airport study to determine the number of systems that will be needed. Initially, due to limited availability, explosives detection systems would be deployed at selected airports. Ultimately, we envision that these systems will be used to screen checked baggage at all major airports. It is estimated that funding could be derived from a $.20 to $1 added surcharge to the price of a ticket.

SENATOR LAUTENBERG: If threat notification legislation were to be enacted, who do you believe should determine whether a threat is a hoax or a serious threat?

ANSWER: All threats to civil aviation security are treated as serious by the FAA until they are determined to be a hoax, which is done by the FAA in conjunction with the appropriate U.S. counter-terrorist agency and in coordination with the applicable U.S. security, investigative, and law enforcement agencies. The U.S. counter-terrorist efforts are led by the FBI within the U.S. and the State Department outside of the U.S. Only when investigation determines that there is no credible threat to an airport or flight will a threat be characterized as a hoax.

Of course, the FAA will always consult and coordinate with all other appropriate U.S. intelligence, law enforcement, and security agencies in assessing the credibility of any threat to U.S. civil aviation. U.S. air carriers will be consulted, if appropriate, on the range of security countermeasures to be taken against a specific threat.

SENATOR LAUTENBERG: This increase in security positions also includes 72 additional federal air marshals. How many air marshals do you currently have, and what portion of their time is spent on flights as opposed to airport assessments?

ANSWER: The exact number of personnel assigned Federal Air Marshal duties is information which cannot be released because of security reasons. Personnel assigned Federal Air Marshal duties spend approximately 25 percent of their time on mission details or in related training. The rest of their time is spent performing the duties of a Civil Aviation Security Specialist, including conducting airport assessments.

SENATOR LAUTENBERG: How do you determine the flights to which air marshals are assigned, and had you assigned additional air marshals to flights originating in Frankfurt or to that airport after the threat was received last December?

ANSWER: Federal Air Marshals are assigned to designated high-risk routes which are selected based on analysis of information and intelligence relating to worldwide terrorist activities. The threat received last December involved the possibility of a bombing, not the possibility of a hijacking. Federal Air Marshals are trained to respond to a hijacking incident.

SENATOR LAUTENBERG: Are your 72 additional air marshals being requested to conduct airport assessments or to provide security coverage on selected flights?

ANSWER: Additional Federal Air Marshals will be assigned the same duties as the current Federal Air Marshals. They will be performing the duties of a Federal Air Marshal 25 percent of their time, the remainder of their time will be spent performing the duties of a Civil Aviation Security Specialist.

SENATOR LAUTENBERG: You are also requesting nine additional positions to provide liaison and intelligence coordination between FAA and other U.S. intelligence agencies. What will these personnel actually do -- will they gather intelligence or merely disseminate the information that is provided by other agencies?

ANSWER: The FAA intelligence staff does not have a charter to collect intelligence information. The staff is responsible for the analysis of intelligence relevant to civil aviation security that is produced by other agencies. On the basis of that analysis, FAA's intelligence staff produces and disseminates specific reports, bulletins, and other products that directly support the civil aviation security program.

The additional positions requested for the intelligence division will be used to enhance the threat assessment and evaluation process in several ways. First, liaison positions will be created at the Central Intelligence Agency (CIA) and the Department of State (DOS). These two agencies are the biggest sources of civil aviation security-related intelligence for the FAA. The creation of these liaison positions will ensure that FAA intelligence requirements are properly identified and articulated at these agencies and that all appropriate intelligence information flows to the FAA.

Second, the additional positions will allow the staff to analyze the additional intelligence information that will now be made available. This, in turn, will enhance the staff's ability to produce the necessary operational reporting --Information Circulars and Security Bulletins -- in a timely fashion. The Information Circular is a new product and is designed to provide general information about threats to civil aviation. The Security Bulletin provides specific threat information and mandates particular countermeasures.

Third, the additional positions will allow the intelligence staff to accomplish more in-depth studies and analyses responsive to civil aviation security consumers. The background information papers and other informative studies that would be possible with an augmented staff will assist airline security personnel in understanding the threat information provided to them by the FAA. Specific training materials will also be possible. For example, information regarding various types of improvised explosive devices favored by terrorist organizations could be drawn together and made available to screening personnel. With the assignment of additional personnel, the Intelligence Division will also be able to produce more finished intelligence products for dissemination throughout the U.S. Intelligence Community.

Finally, augmentation of the intelligence staff will allow the FAA to fully participate at Interagency committees and workgroups, such as the Interagency Intelligence Committee on Terrorism. The exchange of information which takes place at these meetings can be critical in the evaluation of current threat information. Furthermore, contacts made with other members of the Intelligence Community at these meetings enhance the ability of FAA personnel to quickly get assistance from their counterparts in other agencies. Also, one position will be devoted to the national anti-drug efforts at the Washington headquarters level to interface with other law enforcement and intelligence agencies and to provide intelligence support for FAA in this area.

AIRLINE SECURITY PERSONNEL

SENATOR LAUTENBERG: How many people are employed by U.S. airlines to do security work overseas?

ANSWER: The FAA does not keep data on the number of people employed by U.S. airlines overseas. However, the FAA is aware that U.S. airlines have substantially increased their security staffs internationally in response to the current challenges which face civil aviation.

SENATOR LAUTENBERG: How do they relate to FAA personnel and functions?

ANSWER: FAA personnel (special agents) regularly inspect air carrier stations at foreign airports. The FAA special agents do not perform security functions for the air carriers. Rather, they ascertain that each carrier is in compliance with the security regulations and security program. Where potential violations are observed, these special agents initiate investigations and enforcement actions. Additionally, the FAA has deployed the first of several additional personnel to international assignments in Europe and the Middle East. Included in these personnel will be security liaison officers who will serve as FAA Civil Aviation Security technical experts and points of contact with aeronautical officials of foreign governments, U.S. Embassy staffs, airport officials, and U.S. and foreign air carriers. The security liaison officers will provide timely on-site technical advice and assistance concerning FAA regulatory programs, training initiatives, research and development, information exchange, crisis management, and other issues as appropriate.

SENATOR LAUTENBERG: Are most of the people hired by U.S. airlines abroad foreign nationals?

ANSWER: The FAA does not have specific data to answer this

question. Many air carrier employees in foreign countries are foreign nationals.

SENATOR LAUTENBERG: Are there any FAA/federal standards for these people? Background checks, Training requirements, Certification programs?

ANSWER: Air carriers are required to complete the 5-year employment verification checks for all of their employees who have unrestricted access to secure areas, whether those employees are posted at home or abroad, and regardless of their nationality.

In most foreign countries, it would be unlawful for the air carrier to attempt to conduct full background checks, and further, the air carriers would not receive the cooperation of the local law enforcement communities in conducting such checks. In some airports, particularly the larger ones, the airport authorities perform additional background investigations. This obviously, is in their own best interests. However, the host governments do not share the details of those background findings with us.

On the issue of training, the FAA is working with the air carriers, through the Air Transportation Association of America to develop extensive training programs for persons in security related functions. The FAA does not envision development of any certification or licensing programs for security personnel. Instead, the FAA relies on vigorous inspection and enforcement.

SENATOR LAUTENBERG: Wouldn't it make sense for the U.S. government to have some idea of who's being hired, what their qualifications are, and what they're being required to do?

ANSWER: Through the 5-year employment verifications, we can, at any given station, review who has been hired. However, because full background checks conducted by air carriers would be unlawful at most, if not all, foreign locations, we do not have that level of detail concerning air carrier employees. The 5-year employment verifications do, in fact, give us a pretty good idea of what individuals' qualifications are. Because the performance of security duties is covered in detail in the approved air carrier security programs, the FAA, and its special agents, do know what these employees are required to do, as well as whether it is done well.

AIRPORT ACCESS REQUIREMENTS

SENATOR LAUTENBERG: In January, the FAA promulgated rules requiring individual airports to devise systems to protect against unauthorized access to secure areas of airports. In this rule, the FAA did not clearly define just what a "secure area" was, nor require any standardization among airports. Did the FAA look at a system, like a credit card system with information stored on a magnetized strip, that could be used at all airports?

ANSWER: The requirement is for a system, method, or procedure meeting certain performance standards. The FAA does not recommend one technology over another; however, the FAA will make available information developed under contract which addresses the various technologies and their characteristics; e.g., level of security. For the reasons cited in the preamble to the final rule, the FAA is not imposing national uniformity. That does not preclude an airport from procuring a system which has that potential.

SENATOR LAUTENBERG: With all the industry criticisms and

problems with interpretation, does FAA still feel this will be an effective rule?

ANSWER: This will be an effective rule. FAA has provided an Advisory Circular (AC) to the airport community through its major national organizations, American Association of Airport Executives (AAAE) and Airport Operators Council International (AOCI). The AC will assist the airport community in correct interpretations of the requirements. Additionally, FAA is providing to the AAAE and AOCI copies of documented answers provided during weekly telecons held by FAA Headquarters with its regional elements to discuss interpretation and implementation of the rule, and to share problems in implementation and their resolution. Interpretive problems are common to a new rule, especially one affecting so many entities. These problems are decreasing and will continue to decrease as information continues to be provided to the aviation community. The FAA has also attended numerous meetings with airport operators across the nation in which in-depth briefings were presented by the FAA concerning the access rule. Feedback received by the FAA from airport operators indicates that most of the major airports which must meet the earliest compliance dates are well along in their development and implementation plans. The FAA will continue to monitor the progress of airport operators in complying with this rule.

PAY DEMONSTRATION PROJECT

SENATOR LAUTENBERG: Last month we were advised that you were implementing a demonstration project at 11 facilities to provide up to a 20 percent pay increase to certain employees. What is the purpose of this project, and how were the facilities and employees selected?

ANSWER: The purpose of the project is to test whether retention allowances will improve the FAA's ability to recruit and retain fully-qualified employees at certain hard-to-staff facilities. The retention allowances will be paid on a quarterly basis, and will not be part of the employees' base pay. Not all hard-to-staff facilities could be included in this experimental project. The facilities selected are those which have experienced the most chronic and severe staffing difficulties, which have the greatest impact on the national aviation system, and which represent a cross-section of the factors which cause staffing difficulties. The project covers those safety-related air traffic, airway facilities, and flight standards occupations where the FAA experiences the most critical recruitment and retention problems.

SENATOR LAUTENBERG: Why were facilities such as the Kennedy, LaGuardia, and Newark towers excluded?

ANSWER: The Kennedy, LaGuardia, and Newark towers in the New York area are able to recruit well-qualified candidates from a larger number of same-level or lower-level facilities. These facilities can also more easily utilize developmental controllers from the FAA Academy and from other facilities who do not have extensive radar experience and are not in such short supply.

SENATOR LAUTENBERG: In a December 28, 1988 letter, Ms. Horner (then Director of OPM) stated that the bonuses are being provided "only for those positions which are hard-to-staff, not for all similar workers or even all employees at the same location." What criteria did you use to determine which positions are "hard-to-

staff"?

ANSWER: The selection of the facilities and occupations covered by the project included a review of staffing levels, experience levels, turnover rates, overtime use, recruitment efforts, the various causes of the staffing problems, and recommendations from FAA headquarters and field managers. Not all facilities which are considered hard-to-staff could be included in the project. The facilities selected were those which experience the most chronic and severe staffing problems, have the greatest impact on the national aviation system and represent a cross-section of the factors which cause staffing difficulties. The positions covered are those safety-related occupations where the FAA experiences the most critical recruitment and retention problems.

SENATOR LAUTENBERG: Do you have any statistical data that shows that the positions selected are, in fact, the hardest to staff in your agency? If so, please provide it for the record.

ANSWER: Selection of the facilities which are included in the project was not a completely quantitative process. Selections were based not only on the nature and extent of the recruitment and retention problems experienced by the facilities, but also on the impact of the facilities on the national aviation system. Because this is an experimental project of limited size and scope, the selections were targeted at those facilities that could provide the best test for the project.

The demonstration project attempts to solve critical and chronic recruitment problems at 11 critical facilities. Over a period of years, the FAA has tried numerous other methods to resolve these staffing difficulties, with only limited success. For example, we have conducted locally-targeted recruitment for facilities which are difficult to staff. However, at complex facilities such as those included in the demonstration project, the need is for employees with extensive experience. Even though we may be able to recruit candidates locally, it is not operationally feasible to place newly-hired inexperienced employees at these complex facilities. Attracting experienced employees from other locations is difficult because employees are reluctant to move to these more complex facilities for the same pay. The demonstration project would allow the agency to experiment with a new approach to resolve these problems in the most expeditious manner within existing legislative authority.

The project as planned has already shown significant promise. A large number of employees have committed to move to or stay at covered facilities since the project was approved. At Chicago O'Hare, bids from applicants have tripled since the project was announced, and much of the interest is coming from controllers with extensive radar experience. At the New York TRACON, the last bid generated 34 applications, 28 of whom indicated they applied because of the project. The Bay TRACON in Oakland has been able to recruit nine experienced radar controllers since February, in contrast to 1988 when the majority of hires were inexperienced controllers from the FAA Academy. The flight standards district offices included in the project have experienced a 30 to 50 percent increase in the number of well-qualified applicants they receive and a dramatic reduction in turnover rates, which had ranged from 15 to 40 percent over the last year. Similar improvements have occurred in airway facilities.

Statistical data on staffing levels, turnover, experience levels, and other quantitative measures of recruitment and retention

are currently being compiled and analyzed as part of the project's evaluation plan. The data collection and analysis is expected to be completed by June 15, 1989.

SENATOR LAUTENBERG: Do you have plans to include additional facilities in this project at a later date?

ANSWER: At this time, we have no definite plans to include additional facilities. However, if the project proves to be successful, consideration may be given to adding other hard-to-staff facilities at a later date.

SENATOR LAUTENBERG: Why was a five year time period selected?

ANSWER: The Civil Service Reform Act specifies a five year maximum time limitation for demonstration projects conducted under the authority of the Office of Personnel Management. In order to ensure the validity of the project, we believe the full five years is appropriate.

SENATOR LAUTENBERG: Part of our concern in this area is that in the past you had shortages in some centers, such as Minneapolis, that are not included in your project. It appears as if your problem locations vary somewhat over three to five year time periods. Would you comment on this? For example, if some FPL controllers decide they want to move from Indianapolis to Chicago, and two years from now you have a shortage in Indianapolis, will you propose a 20 percent pay increase for that center?

ANSWER: Staffing situations at FAA facilities do vary somewhat over time, and we do experience temporary short-term staffing difficulties at various FAA facilities on occasion. However, this project is designed to address those chronically hard-to-staff facilities where we have had difficulty correcting long-term staffing problems. We do not believe that the demonstration project will create significant staffing problems at other facilities, because we anticipate that employees from many different non-covered facilities will bid on positions at the covered facilities. A second objective of the project is to improve retention of existing employees at the covered facilities, and consequently the number of transfers available to employees from non-covered facilities will decline as the project continues.

SENATOR LAUTENBERG: Has this had any adverse impact on the morale of those employees not included?

ANSWER: Some employees not covered by the project have expressed concern and requested information on the process used to select the covered facilities, but we have no evidence of extensive or serious morale problems which have arisen as a result of the project.

SENATOR LAUTENBERG: How do you intend to evaluate this so-called demonstration -- do you intend to use a control group?

ANSWER: An extensive evaluation plan has been developed to assess the results of the project. The evaluation will consist primarily of pre- and post-demonstration comparisons of a variety of measures, including staffing levels, experience levels, turnover, overtime, leave use, morale, and productivity. Control groups will not be used, but comparisons of these measures will be made against system-wide data. Periodic reports of project status will be prepared, and the results of the evaluation process will be reviewed by an external consultant.

SENATOR LAUTENBERG: If baseline data will be used in the evaluation, provide those data for the record, and indicate how they were collected and how they will be used in your evaluation.

ANSWER: Collection and analysis of baseline data is expected to be completed by June 15, 1989, and will be provided for the record at that time. Baseline data for the three prior fiscal years on staffing levels, turnover, experience levels, overtime use, leave use, and morale is being collected and analyzed for the covered facilities. Data sources include existing agency personnel databases such as the Consolidated Personnel Management Information System and the Consolidated Uniform Payroll System, the FAA's employee survey database, and a manual review of recruitment records and other information maintained by FAA regional offices and field facilities. The baseline data will be used to assess the effectiveness of the project in meeting its objectives, through a comparison with data collected during the operational phase of the project. Similar data will be compiled on a system-wide basis for comparison with the covered facilities, to assess the impact of external factors not associated with the demonstration project.

AIR TRAFFIC CONTROLLER STAFFING

SENATOR LAUTENBERG: How does your current air traffic controller staffing situation compare with that of ten years ago -- is there more overtime, are there more operational errors, and is there more pressure on the controller workforce?

ANSWER: The current controller work force as of April 30 is 16,464 with a September 30, 1989 projection of 16,800. The September 30, 1979 controller work force was 17,015. Overtime is higher than that of ten years ago. In the 3 options -- centers, terminals, and flight service station the overtime in FY 1988 was 853,000 hours compared to 621,000 hours in FY 1979.

There were more operational errors in 1988 than in 1978, but it should be pointed out that operational errors peaked in 1984 at 1,888. Since then operational errors have steadily declined from 1,888 in 1984 to 1,042 in 1988, a decrease of 45 percent. During this same period, total system operations have increased from approximately 104 million to 115 million.

The pressure on the controller workforce can basically be measured by morale. We believe our morale is better than it has ever been. Before the strike we had several problems in the management of our workforce. We are now enjoying a good relationship with our new controller union. Controlling air traffic is still an extremely complex occupation, and you can reach some stressful times during the day in certain areas.

SENATOR LAUTENBERG: Although you exceeded the enacted total controller staffing for fiscal year 1988, you were below both the statutory FPL level (10,450) and your projected FPL level (9,932). Why have you been unable to meet your FPL targets?

ANSWER: The basic problem has been when an FPL is promoted or transfers, that person is no longer an FPL. Retirements have a tremendous influence on the FPL numbers. When a staff person retires an FPL will be promoted into that position. If a FPL transfers from one area to another, or one facility to another that individual may not become an FPL for a half year or more.

SENATOR LAUTENBERG: For fiscal year 1990, you are requesting an increase of 695 controllers. How was this increase determined,

and how confident are you that this request properly reflects your requirements?

ANSWER: The increase was based on forecasted traffic growth, the training bubble required for the Initial Sector Suite Subsystem (ISSS), and the increase from the 50th to 90th percentile day of the staffing standard. We are confident this request will meet our needs.

CONTROLLER RETIREMENTS

SENATOR LAUTENBERG: According to your justification (p. 32), you had fewer air traffic controller retirements in 1988 than you had in 1987, and you are projecting a further reduction in retirements this year. With fewer retirements, why aren't your FPL numbers better than they currently are?

ANSWER: Yes, we are expecting fewer retirements. The FPL count does not solely depend on the retirement factor. Other factors are promotions, temporary promotions, transfers, change to lower grade, and reassignments.

CONTROLLER STAFFING

SENATOR LAUTENBERG: Do you have any specific programs in place to reduce the number of controller operating errors in your terminals and en route centers? If so, please explain.

ANSWER: Terminals and en route centers throughout the country have facility Operational Error Reduction Programs. These local facility programs, along with regional air traffic division and headquarters support, are designed to increase awareness for the causes and elimination of operational errors. Specific areas of concern and causal factors of errors are identified by facility personnel. Refresher training is conducted for all air traffic control specialists and remedial training is provided for controllers involved in the operational errors. Facility managers work in unison with local Facility Advisory Boards (FAB) to identify trends and solutions to errors.

An Operational Error Reduction Symposium was held by FAA headquarters with controllers who have had operational errors. The purpose of this effort is to better understand and identify error causal factors or conditions, and develop recommendations for corrective actions.

Air Traffic is currently involved in a study to determine the relationship between human factors and performance to aviation safety, in particular, the correlation between shiftwork and operational errors.

Air Traffic Service in headquarters has several ongoing programs that work in conjunction with regional air traffic divisions and facilities to increase awareness and accountability in the effort to reduce errors. An Operational Error Investigation and Tracking program has been designed to monitor, identify and correct common trends in errors. Scheduled facility evaluations are conducted to identify deficiencies in the air traffic system. Facility follow-up to evaluations ensures that problem areas are corrected. Headquarters Operational Assessment Teams (OAT) provide the Air Traffic Operations Service with a rapid first hand assessment of specific air traffic facilities and operational concerns. These teams make recommendations for improvement and ensure that actions to remedy safety/efficiency problems are corrected.

Additionally, the headquarters Office for Aviation Safety

conducts system safety and efficiency reviews. A task force with representatives from the FAA and aviation community visit field facilities and identify site specific problems.

There are many avenues and programs available within the FAA that aid in the prevention and reduction of operational errors. Operational errors have decreased by 2.4% for the first half of FY 1989 vs. FY 1988.

SENATOR LAUTENBERG: What is the status of the automated operational error detection program in the terminal radar facilities? When will it be fully operational?

ANSWER: The FAA has tested the Terminal Operational Error Detection Program (TOEDP) and has found its implementation to be infeasible and therefore there is no plan for terminal implementation.

The TOEDP function was tested and evaluated in the Dayton Approach Control. The function provided expected results, however, it was necessary to revise current collision avoidance parameters. Modifying these parameters caused unpredictable results which lead to false conflict detection and nuisance alarms.

AIR TRAFFIC STAFFING STANDARDS

SENATOR LAUTENBERG: Last June, the GAO reported that you should revise your staffing standards and develop a validation process to ensure that your standards are accurate and fair. According to the GAO, neither your regional nor facility managers were using your staffing standards. Have you revised your staffing standards for both centers and towers?

ANSWER: We agreed with GAO that a validation process was needed. We will be collecting data from three additional ARTCCs this summer to update the standards for those facilities. After carefully considering GAO's recommendations we concluded that a major revision to the ARTCCs standard was not needed at this time. When the GAO report was issued in June, we had already begun work on revised standards for terminal facilities. The TRACON portion of that effort is now complete. Full scale data collection for the tower cabs will take place this summer. We expect the entire terminal staffing standards to be in place within the next year.

SENATOR LAUTENBERG: How do you ensure that your staffing standards are actually being used by regional and facility managers?

ANSWER: During the past year, we have met with resource management staffs from the Air Traffic, Management Systems, and Budget Divisions from all regional offices. In some cases, field personnel were included as well. We have provided them with extensive briefings, documentation and output from the en route staffing standards. During the course of these meetings, there were no serious objections raised to what we are doing or how we are approaching the development and implementation of staffing standards. We were also able to get some input regarding the future development and enhancement of the standards. The regions have persisted in developing independent estimates of staffing requirements based on local methods. There are several reasons for this, one of which is the relative inaccessibility of the staffing standards for application on a daily basis. We will be working with some facilities during the next year to correct this problem by developing a software package which can be used for local planning.

Secondly, we have not had a current directive which specifies how staffing requirements are to be determined. This directive has just been issued for comment.

AIR TRAFFIC EVALUATION RESTRUCTURING

SENATOR LAUTENBERG: Last December, former Secretary Burnley ordered a restructuring that separated your air traffic control service from the office that monitors air traffic control safety and efficiency. Why did FAA initially refuse to implement this NTSB recommendation, what is the current status of these offices, and how is this restructuring working?

ANSWER: NTSB Recommendation A-88-90 issued August 8, 1988, recommended establishing an independent national evaluation division reporting directly to the Administrator. When the FAA responded to that recommendation, it was felt that the reorganization of the FAA which occurred just prior to the NTSB recommendation had satisfied the intent. The rationale was that the Office of Aviation Safety reports directly to the Administrator and is tasked with oversight responsibility of all FAA safety issues including air traffic.

NTSB Recommendation A-88-157 issued on November 15, 1988, specifically asked that the FAA conduct a safety and efficiency review and did not recommend the movement of Air Traffic Evaluations from the Air Traffic organization. However, it should be noted that in the background material supporting the recommendation, this was noted.

The FAA does not feel that it refused to implement the NTSB recommendation as the issue of where this function should reside when addressed as noted above.

The air traffic evaluation function has been reassigned back to the Associate Administrator for Air Traffic by the Secretary of Transportation on February 17, 1989. The rationale for this decision was that air traffic should have an enhanced quality assurance program. In addition, the Office of Aviation Safety which reports directly to the Administrator has been given an essential role in the evaluation and compliance activity of Air Traffic and other programs. Each NTSB board member was briefed on this alternate course of action.

The air traffic evaluation function reports to the Associate Administrator for Air Traffic in order to give it a national perspective. In addition, this function is being expanded to include responsibility for all traffic facilities along with enhanced tracking of follow-up on identified problems. The overall scope is to improve system efficiency through the evaluation and followup processes.

Status--approval to establish a fourth field evaluation branch has been granted. The functional statement establishing the new organization--Office of Air Traffic System Effectiveness--is presently being circulated for comments within the agency prior to finalization.

NATCA/FAA AGREEMENT

SENATOR LAUTENBERG: In January, it was reported that you had reached a tentative agreement with the National Air Traffic Controllers Associaiton (NATCA) on a labor contract. What did this agreement include, what cost increases will be required, and what is the status of these negotiations?

ANSWER: The labor contract reached between NATCA and the FAA

is a comprehensive collective bargaining agreement that will be binding between the parties over the next 3 years. It primarily addresses personnel policies, practices and terms and conditions of employment for air traffic controllers in centers and terminals whose primary responsibility is the separation of live air traffic. Negotiations were completed in January of 1989 and the agreement became effective May 1. The membership ratified the agreement by a resounding margin. At this juncture, it is difficult to estimate any cost increases that will be generated as a result of this contract. However, we believe that any increased cost would be negligible.

CONTRACT VISUAL FLIGHT RULES (VFR) TOWERS

SENATOR LAUTENBERG: According to your justification (p. 80), at the end of fiscal year 1990, you will have 38 contract visual flight rules (VFR) towers. What are the qualifications of the controllers at these towers, and what training do they receive?

ANSWER: Controllers who operate these FAA contract towers must have the appropriate FAA licenses and are certified by FAA personnel to provide services at a specific ATCT. Many of the private firms have their own training programs to prepare their controllers to take all required FAA examinations to obtain a Control Tower Operator's license. These controllers receive both classroom training and practical application. The license is required of controllers, FAA, military, or private, before they can perform the duties of an air traffic control specialist in any ATCT.

SENATOR LAUTENBERG: Are there standard operating procedures at these towers?

ANSWER: Yes. Each contract stipulates in the Statement of Work that the contractor shall operate an FAA approved VFR control tower, and must comply with specific Federal Aviation Regulations, FAA directives, and other related Federal, state, and local regulations and procedures as appropriate or necessary. To ensure that all rules and regulations are followed and that services being provided are adequate, FAA evaluates the contract towers on a regular basis.

Per FAA Order 7010.1D, Air Traffic Evaluation Procedures, Appendix 5, Air Traffic Evaluation Procedures for Low Activity (Level I) VFR Control Towers, evaluations will be performed by regional air traffic evaluation personnel, and will be coordinated and conducted the same as a full facility evaluation. The initial evaluation shall be conducted during the first year of the contract, between the 6th and 12th month of operation. Thereafter, evaluations shall be performed at least once every 4 years. The object of the evaluation will be to ensure the operators are providing the highest degree of quality service to the users in accordance with existing agency regulations, policies, and practices.

SENATOR LAUTENBERG: List the 38 contract VFR control towers.

ANSWER: FY 1990, the FAA plans to expand the contract tower program to include an additional 17-20 sites. The funding requested will support the additional sites, full year costs for the 4 new contract towers commissioned or planned for commissioning in FY 1989, increased contractual costs on the 21contract towers from FY 1989, and other costs associated withestablishing a contract tower.

Specific place names have not yet been identified for the additional control towers planned for inclusion in the Contract Tower Program. However, the sites we are reviewing include operating FAA control towers, particularly those which do not meet criteria for continued operation as an FAA-staffed facility but would be cost effective to operate as a contract tower. Additionally, we will be reviewing the temporarily closed control towers to see if they meet criteria for inclusion in the program along with a few non-Federal control towers which have been submitted for consideration by the regions for inclusion in the program.

The control towers planned to be operated as FAA contract towers in FY 1990 are as follows:

Location	Level/type	Status
Topeka (Billard), KS	I/VFR	FAA Contract Tower
Cape Girardeau, MO	I/VFR	FAA Contract Tower
Lewisburg, WV	I/VFR	FAA Contract Tower
Marion, IL	I/VFR	FAA Contract Tower
Waukegan, IL	I/VFR	FAA Contract Tower
Cleveland (Cuyahoga County), OH	I/VFR	FAA Contract Tower
Nashua, NH	I/VFR	FAA Contract Tower
Pendleton, OR	I/VFR	FAA Contract Tower
Bellingham, WA	I/VFR	FAA Contract Tower
Lakeland, FL	I/VFR	FAA Contract Tower
Owensboro, KY	I/VFR	FAA Contract Tower
Paducah, KY	I/VFR	FAA Contract Tower
North Myrtle Beach, SC	I/VFR	FAA Contract Tower
Farmington, NM	I/VFR	FAA Contract Tower
Hobbs, NM	I/VFR	FAA Contract Tower
Ardmore, OK	I/VFR	FAA Contract Tower
Enid, OK	I/VFR	FAA Contract Tower
Laredo, TX	I/VFR	FAA Contract Tower
Flagstaff, AZ	I/VFR	FAA Contract Tower
Whiteman, CA	I/VFR	FAA Contract Tower
Additional sites:		
Stewart, NY	I/VFR	Scheduled in FY89
17-20 ATCTs to be identified	I/VFRs	Scheduled for FY90

USING THE 90TH PERCENTILE FOR THE STAFFING STANDARDS

SENATOR LAUTENBERG: Your justification (p.20) refers to an interim transition to a staffing standard for TRANCONs based on the 90th percentile day's traffic as opposed to the previous standard based on the 50th percentile day. Why was the 90th percentile day selected and does this mean that on 89 percent of the days you have more staff than you need for the traffic?

ANSWER: Use of the 90th percentile day is consistent with the basis used to determine staffing requirements for en route centers. Use of the 90th percentile is also the way staffing has been determined historically in terminal facilities. Use of the 90th percentile day can provide adequate staffing for most busy days without excessive use of overtime. Although there is some excess capacity built into the system for the days below the 90th percentile, this does not equate to excess staffing in terms of controllers with nothing to do. It simply means that every controller is not working at full capacity for every minute of the day.

DRUG TESTING

SENATOR LAUTENBERG: What additional responsibilities were assigned to your agency by the Anti-Drug Abuse Act of 1988, and how much does your fiscal year 1990 budget include to implement these responsibilities?

ANSWER: The FAA Drug Enforcement Assistance Act of 1988 amended the charter of the FAA, requiring the agency to assist law enforcement agencies in the enforcement of laws relating to the regulation of controlled substances, to the extent consistent with aviation safety. The bill also requires FAA to correct certain deficiencies in its airmen and aircraft registry in order to avoid abuse by those persons with criminal intent and to provide a better audit trail for investigative agencies. Finally, the bill also provides for significant criminal penalties for violations of certain Federal Aviation regulations.

FAA has undertaken two major initiatives to support the requirements of the bill. A proposed plan for modernization of the airmen and aircraft registry has been developed and is presently undergoing internal review. The concept calls for a "tightening up" of the procedures for aircraft registration and airmen certification, with additional requirements for positive identification, periodic renewal of registrations and certificates, and an extensive system of automation enabling quick retrieval of information twenty-four hours a day, seven days a week. Secondly, FAA is deploying new Drug Investigation Support Units in the field. Personnel assigned to these units will be responsible for taking enforcement actions against airmen and aircraft involved in illegal drug smuggling as well as acting as the primary liaison between FAA and federal, state, or local law enforcement agencies seeking information on suspect airmen or aircraft.

The FY 1990 budget request includes $4 million for the airmen and aircraft registry project. An FY 1989 supplemental request included $1.4 million for completing hiring of the 14 positions for the Drug Investigation Support Units.

FY 1990 BUDGET FOR DRUG TESTING

SENATOR LAUTENBERG: How much does your fiscal year 1990 budget include for employee drug testing?

ANSWER: $7.2 million.

SENATOR LAUTENBERG: How many aviation industry personnel would be affected by the Department's November 14, 1988 drug testing rule?

ANSWER: We estimate 580,000 would be affected.

SENATOR LAUTENBERG: Are there currently any drug testing requirements for aviation industry employees?

ANSWER: Yes, FAA requirements went into effect December 21, 1988, with the first category of required airlines submitting their plans by April 20, 1989.

COVERAGE UNDER RANDOM TESTING AND RESULTS OF TESTING

SENATOR LAUTENBERG: There has been a random drug testing program for most FAA employees for over a year. What FAA employees are covered by this program, how many tests have been conducted, and what have been the results?

ANSWER: FAA employees who perform critical safety sensitive related duties and those who hold top secret clearances are covered by the random testing program. As of April 30, 1989, a total of 15,072 tests have been conducted. Of these, 96 positives were recorded.

IMPLEMENTATION OF RANDOM DRUG TESTING

SENATOR LAUTENBERG: Has FAA issued regulations to implement the drug free workplace legislation:

ANSWER: FAA has issued several Action Notices to implement the program. In addition, FAA has participated in policy development and review of regulations issued by OST governing the program. FAA has distributed copies of all government regulations down to the facility level.

SENATOR LAUTENBERG: What is the status of the legislatively required joint FAA/DOD national review and report of the need and utilization of special use airspace -- will the June 30, 1989 reporting date be met?

ANSWER: The report is in the office of the Associate Administrator for Air Traffic for coordination. A copy is also in coordination at DOD. Meeting the June 30, 1989 date is contingent upon the report being signed by the Secretaries of Defense and Transportation.

JOINT USE AIRSPACE

SENATOR LAUTENBERG: What progress are you making with regard to joint use of military airports?

ANSWER: There are no new joint use agreements. However, the Air Force is reviewing an application for joint use of Scott Air Force Base in Belleville, IL and we expect interim joint use agreements at several military airfields that are being declared surplus.

SENATOR LAUTENBERG: List the military airfields with joint use agreements.

ANSWER: There are 26 joint-use agreements in effect at domestic military airfields. Twelve of the agreements permit virtually unrestricted use by civil aircraft. The remainder set limits related to aircraft size, operating characteristics, types of operations, or number of flights. Those airfields with joint-use agreements are listed below:

Navy
* Agana NAS, GQ
* Bermuda NAS, BD
  Ford Island, HI
* Yuma MCAS, AZ

Army
* Allen AAF, AK
* Blackstone, AAF, VA
* Dillingham, HI
  Forney AAF, MO
* Grayling AAF, MI
* Libby AAF, AZ

* Sherman AAF, KS
Wainwright AAF, AK
Polk AAF, LA
Gray AAF, WA
* McCoy/Sparta AAF, WI

Airforce
Barter Island DS, AK
* Charleston AFB, SC
Dover AFB, DE
Eglin AFB, FL
Myrtle Beach AFB, SC
Palmdale Plant 42, CA
Point Lay DS, AK
Rickenbacker ANGB, OH
* Sheppard AFB, TX
Travis AFB, CA
Westover AFB, MA

Richards-Gebaur AFB, MO and Ellington AFB, TX have been converted to civil ownership.

* Airfields with unrestricted use by civil aircraft.

RECRUITING AND SCREENING

SENATOR LAUTENBERG: Break down your request for recruiting and screening. How are these funds to be spent?

ANSWER: During FY 1989 we moved forward in establishing a nationally focused recruitment program directed at seeking out the most highly skilled applicants possible for safety-related occupations in FAA. For FY 1990, we request positions for the regional offices, the FAA Technical Center, the Aeronautical Center, and Washington headquarters to hire full time recruiters. Two positions will be assigned to the Office of Personnel for program administration. This is a total of 40 full time permanent positions and 40 full time equivalent work years, at a cost of $2 million in personnel compensation and benefits.

Travel required for recruiting will total $121,000. Contractual services to develop formal training for recruiters, development of audio and video recruiting materials, and printed materials for recruiting will require an additional $1.9 million.

During FY 1989, FAA contracted for research to redesign the screening system for new entrants into the FAA Academy in air traffic control positions. For FY 1990 we will allocate two full time permanent positions and two full time equivalent work years to develop a new pre-hire screening system that will be from 3 to 5 days in length. Salary costs will be $100,000 to include compensation and benefits, $900,000 for contractual services to develop the screen and $45 thousand for travel. The screen will be validated and implemented in FY 1992.

TRAINING COSTS

SENATOR LAUTENBERG: About $12.6 million of your requested increase is to completely overhaul the training curricula for all safety-related occupations. Why haven't your curricula been updated on a continuing basis?

ANSWER: We regularly revise and redevelop Academy courseware to correct deficiencies in the courses and incorporate changes in the operating environment. For the past several years, the need to train replacement controllers and newly-hired aviation safety inspectors and airway facilities technicians has reduced the amount of time and dollar resources available for curricular revisions--so even our update activities have fallen behind.

More importantly, the recent studies of FAA training concluded that fundamental changes were necessary in our whole structure of training. It will not be enough to update our courses--we must overhaul the entire curriculum. This means going back to ground zero, examining our structural principles, and designing new programs of training to meet the future operational needs and to capture the benefit of modern training technology.

This is an immense challenge and a costly one. An independent cost-benefit analysis concluded, however, that the one-time costs required in this redesign will be much more than offset by the quantifiable future benefits. This positive benefit-to-cost relationship was found even without including the non-tangible savings (lower stress and hardship on trainees and improved morale throughout the system) we expect to achieve as a "side benefit" of the modernized training system.

SENATOR LAUTENBERG: Last year (p. 326), you requested an increase of $7.5 million for the first phase of your air traffic training modernization program. How are these funds being spent? What have you accomplished with this increase?

ANSWER: As stated in our opening statement, in FY 1989 FAA has had to absorb over $120 million of unbudgeted costs for the 4.1 percent pay raise, health insurance costs, drug testing and similar costs. The $7.5 million for training had to be reduced substantially to cover these costs. Nevertheless, we have:

o established the Office of Training and Higher Education and charged that office with accountability for the technical training program;

o conducted the first symposium with representatives from industry, academia, international aviation organizations, and other government agencies with interests in technical training similar to the agency's;

o initiated developmental work for a new training management information system to more closely track training requirements and enrollments;

o begun conducting a new air traffic control OJT instructor course as the first step in selecting, training, evaluating, and certifying the best talent as facility OJT instructors;

o implemented, for air traffic control applicants, a streamlined hiring process that utilizes scanners and portable personal computers to significantly reduce pre-employment processing time.

SENATOR LAUTENBERG: Last summer, former Administrator McArtor announced a major air traffic controller training program. At that time, he stated that your goal is better trained controllers in half the time, at half the cost. What plans does FAA have to meet these goals?

ANSWER: We intend to reduce the cost to train air traffic controllers by a variety of initiatives:

First, and most importantly, we will reduce the washout rate by replacing our current 11-week screen with a shorter, more effective screen that can be applied before the trainees ever become FAA

employees. Thus, 2/3 of our very expensive washout rate will disappear entirely.

The second way we hope to reduce the time and cost is to design more effective and concentrated training for new controllers. The key here will be to design the training using the best available understanding of air traffic control tasks and adult learning strategies, and employ advanced simulation technology to train and reinforce the necessary skills.

We also plan to establish pre-hire training programs in air traffic control at colleges and universities in order to off-load some of the cost of screening and training to the private sector and applicants. A pilot project with Hampton University will be established in FY 1990, with additional higher education institutions to be involved beginning in FY 1991.

We have already launched programs designed to improve our method of selecting, training, and evaluating facility on-the-job training instructors. A new air traffic OJT instructor course was placed on-line in January and a new OJT evaluator course was prototyped in April. These efforts will continue into FY 1990 and beyond. The goal here is to assure that we have a truly excellent cadre of well-trained and highly motivated instructors to coach the developmentals through their facility training program.

We think we can accomplish most of these changes in 3 years, thus being ready for the ISSS introduction. In FY 1990, we hope to develop and prototype the new screening methods, complete a cognitive task analysis of what controllers do, and begin to develop new training methods. In FY 1991 and FY 1992, we will validate and implement the new screening methods. In FY 1991, we will finish developing the controller training curriculum, and in FY 1992, we will begin to train instructors to implement the new curriculum.

CONTROLLER TRAINING

SENATOR LAUTENBERG: Trainee washout and the length of training have always been problems. Does the FY 1990 budget request reflect improvements in these areas?

ANSWER: Yes, our request includes start up funds in several key initiatives areas which address the washout rate and the length of air traffic controller training.

We intend to reduce the washout rate by replacing our current 11-week screen with a shorter, more effective screen that can be applied before the trainee ever becomes an FAA employee. This will cut our washout rate by two thirds.

We will also design more effective and concentrated training for new controllers. The key here will be to design the training using the best available understanding of air traffic control tasks and adult learning strategies, and employ advanced simulation technology to train and reinforce the necessary skills. Pre-hire training programs at colleges and universities will off-load some of the cost and time of screening and training to the private sector and applicants.

We have already launched programs designed to improve our method of selecting, training, and evaluating facility on-the-job training instructors. The goal is to assure that we have a cadre of well-trained, highly motivated instructors in the facility training program.

SENATOR LAUTENBERG: According to your justification (pp. 164 and 169), you are requesting a $41 million increase for your

training initiatives and a total increase of $49.19 million for centralized training. Why do you need about a 35 percent increase in fiscal year 1990 for training?

ANSWER: Last year 3 different studies of FAA training concluded FAA training had a lot of problems. These ranged from lack of planning to declining program staff to over-reliance on on-the-job training to lack of modern training technology.

To prepare the FY 1990 budget, we put together a comprehensive plan called the Flight Plan for Training to rapidly correct these problems. Our sense of urgency has two sources. First, we are hiring record numbers of new employees to replace skilled employees who are currently eligible to retire, and to meet the growing demands for our services. These new hires are wasted assets if we don't train them as soon as they arrive and as quickly as possible. Many of our air traffic control managers have told us they presently have enough employees in their facilities, but do not have the resources to train them to the full performance level.

Second, the new technology being provided through the NAS Plan has started to arrive, creating a huge retraining requirement. If we are not adequately prepared to train air traffic controllers efficiently when the ISSS arrives, for example, the situation in our air traffic control centers could easily become very hard to manage. ISSS is scheduled to arrive in 1993, and we must be prepared to meet the training needs that it will create.

FAA allowed these problems to accumulate because the pressure to train thousands of new air traffic controllers, inspectors and technicians in the face of increasing air traffic and declining training staff prevented FAA from investing in better training methods. Even though we knew we could probably do better, we barely had the resources to maintain what we were doing; we couldn't slow down our current training to free up resources to develop new methods.

FAA is like every other organization in town. It protects its basic operational mission above everything else, and is unwilling to sacrifice current operations in order to improve or update training. FAA's operating budget, which includes funding for training, has been constrained throughout the past decade, just as other civilian agencies' have been. In January 1988, there were only about a dozen people in the entire 46,000 person staff working full time on training curriculum. Quite simply, that's not enough investment to keep up, so FAA was falling behind steadily.

An example of the budget constraint occurred again this year. Early in the fiscal year, we could see that we could not absorb unexpected expenses like the $100 million pay raise and still carry out all the programs that had been supported in the budget. Our air traffic, flight standards and system maintenance components all proposed to hire fewer people than allowed for by Congress in order to provide adequate funding for training. Their theory was that it doesn't make sense to hire people you cannot train properly. Ultimately, however, we decided the Congressional mandate to employ certain numbers of safety-related staff was so strong that it would be unacceptable to fall short. The grim outcome was that we once again sacrificed our ability to train well and completely, and to develop better training methods, in order to support our operations.

Thus, in a budget year we hoped would allow us to get a leg up on modernizing training, we actually fell further behind.

The benefits possible by modernizing FAA's training are too great to delay any further. For example, if we had simulators, air traffic controllers could practice both routine and emergency

situations before we ever ask them to handle live traffic. Simulator technology would allow us to practice situations we hope we never actually encounter and allow controllers to practice enough to become automatic and consistent. Those of you who have visited FAA's training academy in Oklahoma City may remember the state of our current simulation, where air traffic control trainees carry toy airplanes around a painted plywood table. Our lack of training technology is embarrassing, costly, and inefficient.

To be sure we were on the right track, we commissioned an independent cost/benefit analysis of our Flight Plan for Training. This study showed that benefits substantially exceed costs, even without considering hard-to-measure but important benefits like reduced anxiety and added confidence for trainees.

We would like to underscore how urgently FAA needs to modernize its training. We face challenges that will not simply recede or disappear, and the irony is that it is more expensive to continue our current situation than it would be to install and use better methods. But, like so many other things, improvement requires front-end investment. We considered our training initiatives so important to our future that we asked for supplemental appropriations to allow us to begin improving in areas not provided for in our 1989 budget. Remember, the 1989 budget was proposed and approved long before we completed our Plan. But as I mentioned earlier, our 1989 budget adjustments have already delayed some projects, making our need for the supplemental and a fully-funded FY 1990 budget even more urgent.

SENATOR LAUTENBERG: What does it cost to train a controller? How does this compare to prior years?

ANSWER: The total cost to train a new en route controller is approximately $156,000. For a terminal controller, the training cost is approximately $92,000. It is important to note that both of these figures include costs incurred outside the centralized training subactivity.

Increases over prior years in the centralized training cost to train new controllers reflect only inflationary price increases, and modifications made to the screen training course lengths.

SENATOR LAUTENBERG: How much of this increase is a one-time cost?

ANSWER: More than half (50%-60%) of the FY 1990 Training Initiative costs are associated with development activities which will not carry over after implementation. We expect substantial development costs to continue through FY 1994.

SAFETY INSPECTIONS

SENATOR LAUTENBERG: It has been reported that, since deregulation, the number of mechanics per plane has declined from 16.6 to 11.8 and the percentage of airline budgets devoted to maintenance has also dropped. To what extent do you believe the cost of proper maintenance of older commercial aircraft (including the cost of additional personnel and training as well as the cost of the research and development needed to improve the efficiency of inspection and maintenance of these planes) is beyond the reasonable financial capability of most carriers? What do you believe the federal role should be in this area?

ANSWER: During the past few years, aircraft maintenance has evolved into a new era. New technology in the areas of non-

destructive testing, manufacturing design, and extended reliability programs has made aircraft maintenance more cost effective. Phased inspections have been introduced into the industry. These inspections are more effective and require less manpower than the older programs which required complete inspection of the aircraft at each maintenance visit. When these factors are related to maintenance statistics, it may appear that maintenance budgets have been reduced. However, statistics available show an increase of $500,000 per aircraft per year from 1980 through 1988. The airlines are financially capable of maintaining their fleets of aircraft. Market forces require them to decide between the relative merits of inexpensive older equipment which requires expensive maintenance or expensive new aircraft which are cheaper to maintain. The FAA will not and cannot allow financial difficulties to result in reduced expenditures which lower safety standards.

A recent study indicated a total maintenance cost for the entire air carrier fleet of 2.3 cents per seat mile. Additional costs generated by the aging fleet project, such as additional personnel, increased training, and complying with the provisions of new airworthiness directives, would only raise this figure to 2.7 cents per seat mile. On the other hand, if the older aircraft were replaced with new equipment, the cost would be more than 3 cents per seat mile. This is due to the inclusion of capital costs into the formula.

Research and development costs, such as nondestructive testing methods and corrosion control techniques, are largely borne by the Federal government and the aircraft manufacturers and tend to make the inspection process less labor intensive. This, we believe, is a proper Government role to complement the safety standard setting and surveillance we do.

The FAA has established an aging fleet program, working with industry to explore and solve the problems associated with these aircraft. The FAA will continue these initiatives and provide oversight and surveillance of air carrier efforts to deal with problems related to aging fleets.

SENATOR LAUTENBERG: How do you ensure that the maintenance personnel hired by the airlines are being properly trained?

ANSWER: Air carriers are required to have a training program for each person, including inspection personnel, who performs maintenance or determines the adequacy of work performed. The training program must ensure persons are fully informed about procedures and techniques and new equipment in use and are competent to perform their assigned duties. Training programs for maintenance and inspection personnel must be acceptable to the FAA and are audited routinely by aviation safety inspectors.

The FAA also redirects its surveillance activities when trends are identified or when a special emphasis is required in a specific area. For example, as a result of recent labor-management difficulties, the FAA closely monitored the training of maintenance and inspection personnel at Eastern Air Lines, as well as work performed for Eastern Air Lines by contractors.

SENATOR LAUTENBERG: To what extent do you alter the number and types of inspections based on the age of an airline's fleet or on the financial condition of the carrier?

ANSWER: Since the Aloha Airlines incident, much attention has been directed to the condition of the aging aircraft fleet. Airlines have given more attention and spent more money in the areas

of structural inspection corrosion control, and non-destructive testing. Airlines and their representatives, such as the Airline Transport Association, have voluntarily adopted additional measures in each of these areas.

The FAA has established an aging fleet program. One of the concerns to be looked into is how to determine when an aircraft needs to be subjected to more frequent or more vigorous inspections than called for in current approved maintenance programs. Factors such as the number of cycles flown, hours flown, climatic exposure, and aircraft age must be explored to determine if any relationships exist which would require more or different types of inspections.

The criteria for national aviation safety work programs are described in FAA Order 1800.56, Administration of Aviation Standards Activities - Program Guidelines. The program guidelines establish work program criteria and set priorities for Flight Standards field elements and are reviewed annually. Recent potentially catastrophic structural failures indicated the need for increased surveillance by aviation safety inspectors during structural inspection events. Therefore, the FY 1989 program guidelines added requirements for "hands-on" inspections of aircraft undergoing heavy maintenance inspections, including personally viewing areas where cracks, corrosion, or any other defect exists.

It is FAA policy to increase surveillance activities when certain conditions warrant. Aviation safety inspector handbooks stipulate conditions which warrant increased surveillance, including new operations, mergers, labor unrest, and bankruptcy.

SENATOR LAUTENBERG: Last summer it was reported that at least five jets had suffered damage from hidden cracks in the plane's airframe, which is covered by the outer skin and not easily inspected. What kinds of tests are being used to determine whether or not a plane is unsafe to fly, and how effective are they?

ANSWER: As a result of recommendations presented at the International Conference on Aging Airplanes, June 1-3, 1988, manufacturers of transport airplanes have reviewed the extensiveness of the fatigue tests accomplished on their designs and have adapted additional fatigue test and tear-down inspection programs on their current airplane models to substantiate the adequacy of their older designs.

The FAA is planning to investigate the feasibility of using limit load pressure testing of existing transports to assess their capability of continued safe flight. In addition, a program of analysis and testing is being implemented which will include laboratory testing to establish the characteristics of multiple site damage in typical types of airplane structure. A major part of our effort includes development of new techniques and technologies in non-destructive evaluation to assist in detecting hidden flaws.

The program of additional fatigue tests on older designs has given insight into the need for corrective actions to assure the safety of current designs. The research and development into multiple site damage and the feasibility study on the use of proof pressure testing will add to the arsenal of knowledge, which will permit continued airworthiness of the transport fleet.

SENATOR LAUTENBERG: Last year, the Aviation Safety Commission recommended (p. 36) that a national certification program be initiated for those airlines that operate beyond a regional scope, specifically the airlines classified as majors and nationals by the Department. Have you established such a program or otherwise

modified your approach to provide greater uniformity of regulations, standards, and enforcement?

ANSWER: The FAA has already established two certificate management offices (CMO). Each office is responsible for managing the activities of a major air carrier, including certification and surveillance. CMOs for Pan American World Airways and Eastern Air Lines are now operational and others are being established for all the "majors."

In addition, the Office of Flight Standards underwent a major reorganization during FY 1988 to design a more realistic and effective organization to meet the demands of the aviation industry. A new Flight Standards Service was created which provided for the straightlining of program operations. The Technical Programs Division was established to oversee the technical aspects of air navigation and the Field Programs Division was established to direct and implement national programs for certification and surveillance. New aviation safety inspector handbooks now being issued under Project SAFE also contain standardized guidance to provide greater uniformity.

SENATOR LAUTENBERG: The Commission also recommended that you add a permanent program of recurring in-depth inspections and periodic unannounced or surprise inspections to your system of regularly assigned inspections. Have you implemented this recommendation?

ANSWER: The Flight Standards National Aviation Safety Inspection Program (NASIP) directs the conduct of comprehensive inspections of air operators and air agencies. These inspections are intended to ensure that operations are in compliance with the FAR and to correct deficiencies as necessary. To the maximum extent practicable, teams operating under the NASIP are comprised of inspectors from regions other than the certificate-holding region. This is intended to enhance objectivity and standardization. During the past year, the NASIP procedures were changed so that operators receive minimum to no notice of these in-depth inspections. During FY 1988, a total of 30 scheduled inspections (6 air carriers, 6 commuter or on demand air taxi operators, 4 helicopter emergency medical service operators, 7 pilot schools, 6 repair stations, and 1 aviation maintenance technician school) and 37 special emphasis inspections were completed (36 scheduled commuters and 1 repair station).

In addition to activities directed by the Program Guidelines, district office managers schedule thousands of inspections throughout the aviation community. The frequency and depth of these additional inspections are based on many factors, including the size and scope of an operator, changes in ownership or fleet size or complexity, changes in operating environments, indications of financial or labor difficulties, the operator's regulatory compliance records, and findings from special inspections. District office employees inspect operators for which the office has direct certificate responsibility as well as operators whose activities bring them within the area of geographic responsibility for that office, although the certificate management responsibility rests with another district office. A minimum of 35 percent of the total work hours available for aviation safety inspectors is scheduled for surveillance activities.

SENATOR LAUTENBERG: What management or procedural changes have you made to monitor those air carriers that have geographically

diverse maintenance activities?

ANSWER: Each air carrier must have an FAA-approved maintenance program. This program must be adhered to no matter where the aircraft may be operated or maintained. Anyone performing maintenance, including contract maintenance, must do so in accordance with these approved procedures. Aviation safety inspectors throughout the world conduct surveillance activities to ensure compliance by both the operator and the person or facility performing maintenance.

Two separate certificate management offices have been established, each responsible for the oversight of a major air carrier. These offices can provide inspectors conducting surveillance worldwide with data specific to the air carrier, such as approved programs and procedures.

Each air carrier and commuter air carrier is being issued new operations specifications. These operations specifications are computer generated and standardize operating conditions and limitations throughout the industry. They continue to allow operators to establish individual company policies, procedures, and programs. The FAA has also developed an automated Vital Information System (VIS), which contains data such as operator name, areas of operations, applicable regulations, exemptions, and management personnel. VIS assists inspectors in performing surveillance, certification, and investigation functions.

Work program guidelines establish work program criteria and set priorities for aviation safety inspectors. They specify a baseline surveillance program to ensure systematic accomplishment of inspection activities and establish priorities for conducting investigations, certifications, and aviation safety and educational programs. Surveillance activities (inspections) take precedence over all other Flight Standards functions. The program guidelines are reviewed annually and have been revised to clarify cockpit enroute inspection requirements for maintenance and avionics inspectors. In addition, the requirements for special emphasis inspections for maintenance activities have been expanded. Special emphasis areas relating to maintenance activities include contract maintenance, compliance with minimum equipment lists and configuration deviation lists, and hands-on inspection of type "C" and "D" checks of older aircraft. This latter inspection also provides the FAA with an overview of the effectiveness of the air carrier's overall maintenance program. In addition to inspections established as a result of program guidelines, surveillance activities are increased when certain compliance alert indicators occur, such as financial problems, labor unrest, corporate activities which could affect safety, operational changes, or large amounts of contractual agreements.

SAFETY BUDGET REQUEST

SENATOR LAUTENBERG: Last year (p. 333) you stated that under Project SAFE you were reevaluating your standard that you use to determine the ratio of inspectors to administrative support personnel. What did you conclude from this reevaluation?

ANSWER: As a result of the job task analysis conducted on district office administrative and clerical functions, it was determined that the ratio of field office support personnel to inspectors should be 1:4.4. Previously, staffing had been estimated at a ratio of 1 support position for every 5 inspectors. The staffing standard used to determine the new ratio is based on task

and work rates in existence when the data was collected in 1988. Tasks will be added or deleted and work rates modified as work requirements change and cyclic reviews of the staffing standard are conducted. The additional position which will be required to meet the new ratio will be required in the FY 1991 submission or later as necessary to balance inspector and support position needs and hiring capabilities.

SENATOR LAUTENBERG: What are the qualifications of a typical newly hired inspector?

ANSWER: Qualification requirements are established by the FAA with Office of Personnel Management approval. Each option and specialty of the aviation safety inspector occupation has specialized requirements for experience, licenses and ratings.

Operations inspectors require:

Air Carrier	General Aviation	
x	x	An airline transport pilot certificate or commercial pilot certificate with instrument airplane rating
x		Pilot experience in large multi-engine aircraft (over 12,500 pounds gross takeoff weight)
	x	Single and multi-engine land airplane ratings
	x	Valid flight instructor certificate with single- and multiengine airplane and instrument airplane ratings
	x	Pilot experience which provide a comprehensive knowledge of operations requirements, facilities, practices, procedures, and flight activities of aircraft
x	x	A minimum of 1,500 total flight hours
x		Pilot-in-command experience in large aircraft (12,500 pounds gross takeoff weight) within the last 3 years
x		A minimum of 100 flight hours in the last 3 years
	x	Some aviation work experience in the past 10 years
	x	A minimum of 300 flight hours in the last 3 years
x	x	A minimum of 1,000 flight hours in the last 5 years

x		Professional flying skill demonstrated by successful completion of a turbojet evaluation
	x	Professional flying skill demonstrated by passing a flight check to commercial pilot certificate with an instrument standard
x	x	Not more than two flying accidents in last 5 years

Maintenance inspectors require:

x	x	FAA mechanic certificate with airframe & powerplant ratings
x	x	Aviation maintenance work experience
x	x	Three years of supervisory experience in aviation maintenance (a supervisor is defined to include a lead mechanic or repairman who supervises others)
x		Aircraft maintenance experience in a repair station, air carrier repair facility, or military repair facility
x		Experience in maintenance and repair of airframes, powerplants, and systems of large aircraft (over 12,500 pounds gross takeoff weight) under an airworthiness maintenance and inspection program
	x	Maintenance experience with aircraft under 12,500 pounds gross takeoff weight
	x	Experience in the maintenance and repair of airframes, powerplants, & aircraft systems with responsibility for certifying airworthiness
	x	Maintenance experience in a repair station, airline repair facility, or military repair facility
x	x	Some aviation maintenance work experience in the past 3 years

Avionics inspectors require:

x		Aircraft electronics work experience

	x	Work experience involving the maintenance & repair of avionics systems
x	x	Three years of avionics supervisory experience (a supervisor is defined to include a lead mechanic or repairman who supervises others)
x		Experience involving the maintenance and repair of aircraft avionics systems on large aircraft (over 12,500 pounds gross takeoff weight)
x		Aircraft avionics experience in a repair station, air carrier repair facility, or military repair facility
	x	Aircraft avionics experience with aircraft under 12,500 pounds gross takeoff weight
	x	Avionics experience in a repair station, airline repair station, or military repair facility
x	x	Some aircraft avionics work experience within the last 3 years

Additionally, inspectors may not have had more than two separate incidents involving Federal Aviation Regulation violations in the last 5 years; a valid State driver's license; fluency in the English language; a high school diploma or equivalent; no chemical dependencies or drug abuse problems which could interfere with job performance; and meet physical requirements applicable to the option and specialty.

SENATOR LAUTENBERG: Your fiscal year 1990 budget includes funds for 174 additional general aviation safety inspectors, 126 additional air carrier inspectors, and 100 additional inspector support personnel (p. 122). How was each of these increases determined? What criteria did you use to allocate your inspector increases between general aviation and air carriers -- do you have staffing standards? If so, how are they applied? To what extent do you alter your staffing standards or inspector allocations based on changes in aviation accident or fatality rates?

ANSWER: The occupational staffing standards applicable to aviation safety inspector positions is based on a comprehensive job task analysis (JTA). For each JTA task, the standard contains a frequency measure which shows how often each task should be performed for each part of the aviation environment, the number of environmental units which exists, and a work rate. From these factors, the total staffing required to perform each task can be computed. Staffing is added to allow for work associated with accident and incident investigations. In addition, factors are

included in the standard to cover indirect work elements that have an impact on time and work requirements. These factors reflect time allowances for training and administrative areas such as an allowance for leave based on the analysis of leave usage data from the payroll system.

Inspector positions are allocated to the nine FAA regions based on the occupational staffing standard. Positions are allocated based on the region's percentage of the total aviation environment. The allocation between air carrier and general aviation and among operations, maintenance, and avionics inspectors is derived from the task data in the staffing standard.

The staffing standard is refined and validated on a cyclical basis. As new environmental data are collected and analyzed, adjustments are made in the allocations between regions and between inspector specialties. Staffing levels are carefully monitored for the proper mix of inspector specialties and timely filling of authorized positions.

The aviation safety inspector staffing standard is not based on factors such as fatality rates or aviation accidents. Short-term requirements are met by implementing special emphasis programs, such as the special National Aviation Safety Inspection Program (NASIP) inspection of Part 135 commuter air carrier conducted during FY 1988 or by annual adjustments to the national work program guidelines. New positions also would be requested following the implementation of new or amended Federal Aviation Regulations and the incorporation of the job task analysis and work rate data into the staffing standard.

FOREIGN REPAIR STATIONS

SENATOR LAUTENBERG: With regard to your new regulations pertaining to U.S. operator's use of foreign repair stations, how do you propose to assure adherence to your standards -- will more inspectors be assigned to foreign offices? Is this requirement dealt with in your Project SAFE reorganization?

ANSWER: Foreign repair facilities must adhere to the same certification standards as domestic repair stations. Foreign repair station certificates are initially issued for a 1-year period. They may be renewed for up to 2-year periods. These renewals constitute complete recertification, including physical inspections of facilities by aviation safety inspectors. This is in addition to other surveillance conducted by FAA inspectors.

Facilities performing work for U.S. air carriers must adhere to the policies, practices, and procedures approved by the FAA for each air carrier. Since air carriers are responsible for the work performed on their aircraft, most air carriers perform their own surveillance of foreign facilities.

The FAA estimated that up to 44 additional inspectors could be required to handle certification and surveillance of foreign repair stations under the new rules. The estimate was based on an additional 200 facilities applying for certification. Additional resources for increased travel or the cost of location personnel at overseas locations will also be required. The amount of any required increases will be determined by the numbers and locations of applicants. As of April 14, 1989, approximately 100 foreign facilities had expressed an interest in repair station certification.

The FAA has issued guidance material to ensure that the certification of foreign repair stations will not exceed the FAA's

ability to oversee these facilities.

Project SAFE (Safety Activity Function Evaluation) and the aviation safety inspector staffing standards have not been adjusted to reflect additional work arising from the new foreign repair station rules. Changes in the staffing standard are based on work accomplished before each cyclic collection of environmental and task data. New requirements are met through reallocation of resources, special emphasis programs, and annual adjustments to national work program guidelines.

AIRCRAFT CERTIFICATION

SENATOR LAUTENBERG: You are requesting an increase of 60 positions for your aircraft certification program. How was this level determined, and how do you determine where to assign them? For example, on what basis do you assign personnel to initial certification as compared with production?

ANSWER: The results of the initial application of our manufacturing inspector staffing guidelines were combined with input from our Aircraft Certification Regulatory Program (ACRP) managers in arriving at a figure of 131 positions required in FY-90 to regain health to the ACRP. However, our ability to assimilate, train and utilize an influx of new employees limited our request to 60 positions. Assignment of personnel to initial certification or production is decided utilizing inspector staffing guidelines, input from ACRP managers based on knowledge of workload and priorities, and findings and recommendations identified in studies and evaluations, including Operation SNAPSHOT.

SENATOR LAUTENBERG: How do your personnel monitor aircraft production? For example, do you approve company quality control procedures?

ANSWER: An Aviation Safety Inspector (Manufacturing) workforce of approximately 85 personnel monitor about 1,450 aircraft, engine, propeller and parts manufacturers that hold FAA production approvals. The FAA approves the company's quality control procedures, when required by the Federal Aviation Regulations, prior to issuance of a production approval. Any subsequent changes to the quality procedures are also approved by the FAA. The inspector workforce also randomly conducts quality system audits of production approval holders.

SENATOR LAUTENBERG: What measures are being taken to improve certification review of foreign-manufactured aircraft with regard to FAA standards?

ANSWER: There is no significant difference between the certification review of domestic versus foreign-manufactured aircraft. However, in the belief that common certification standards among major aeronautical product manufacturing states will ultimately provide an increased level of safety for such products and will relieve some of the unwarranted burden of demonstrating compliance to multiple standards, thus lowering costs, the FAA has for several years worked very closely with the Joint Airworthiness Authorities of Europe, as well as Canada, Australia, and other countries, in bringing new and revised standards, guidance, and procedures into close agreement among those individual authorities. Creation of the Aircraft Certification Directorate system has also served to greatly standardize the handling of foreign-manufactured aircraft certification, as it has for domestic certification

programs. Finally, a need has been identified for a significant number of new positions to permit the FAA to properly oversee the burgeoning number of domestic, international, and trans-national aircraft production approval holders.

SENATOR LAUTENBERG: There have also been reports about the possible sale and use of counterfeit parts. To what extent is your program capable of detecting the use of counterfeit parts, and have your inspectors actually found instances where bogus parts were being used?

ANSWER: The Aircraft Certification Service is aware of the many reports of counterfeit parts in use throughout the Department of Defense (DOD) and other U.S. industries. The proliferation of these reports seems to concern substandard fasteners that have been procured from outside the United States and from a few unscrupulous U.S. manufacturers and distributors. The Aircraft Certification Service relies on the quality assurance system of production approval holders to detect such counterfeit parts prior to entering production. The FAA has no regulatory authority to certificate or monitor fastener manufacturers or distributors. To date, FAA inspections at production approval holders have not revealed a major problem in counterfeit part use though cases do arise from time to time, and are aggressively pursued when uncovered.

PILOT MONITORING

SENATOR LAUTENBERG: Last year, the Administrator stated that FAA was working on an intensive review of all applicable regulations regarding pilot certification (Parts 61, 141, and 143). It was anticipated that by the beginning of this calendar year, there would be some changes in rules with respect to pilot certification. What has resulted from this effort?

ANSWER: An increasingly complex and demanding environment and rapidly evolving technology have made it necessary for the FAA to initiate a major regulatory review of Parts 61, 141, and 143 of the Federal Aviation Regulations. Since 1974, the Federal Aviation Administration (FAA) has received over 3,000 petitions for exemption, numerous petitions for rulemaking, and letters from the public. As a result, the FAA has initiated a multi-phase program, which is being conducted concurrently.

Phase I will result in a Notice of Proposed Rulemaking (NPRM) addressing the National Transportation Safety Board's (NTSB) recommendations, a task force recommendation, and certain exemptions to Part 141. Public hearings were held on these issues in July and August 1988. The NPRM has completed DOT coordination and was forwarded to the Office of Management and Budget on May 10, 1989, for review in accordance with Executive Order 12291 prior to publication.

Phase II will address items requiring more extensive research through 1989, including pilot and instructor training and certification requirements and the analysis of pilot and instructor knowledge, skills, and abilities. The job task analysis panels for the pilot and flight instructor training and certification have been completed and the final report is being reviewed. The FAA plans to conduct public hearings on Phase II in September/October 1989.

Phase III of this regulatory review is being developed to identify pilot performance requirements through the year 2000 and beyond. The regulatory schedule for Phase III will be developed upon completion of a trend analysis which is scheduled to begin in

FY 1990 and the FAA Human Factors Research Plan.

DRUNK DRIVING CONVICTIONS

SENATOR LAUTENBERG: Earlier this year the Inspector General testified that you have taken few actions against the 7,800 airmen who violated federal law by not reporting their drunk driving convictions. What are your plans for future action?

ANSWER: Approximately 6,400 pilots were identified in the Office of the Inspector General (OIG) Match. On April 14, 1989, a Notice of Enforcement Policy was published in the Federal Register by FAA regarding proposed enforcement actions resulting from the OIG Match. Information packages containing the OIG Match results were assembled in FAA headquarters on each pilot and distributed to the FAA region ofjurisdiction for enforcement action. Those cases (information packages) are now being prepared in Enforcement Investigation Report (EIR) form by the regional Civil Aviation Security Divisions. Each EIR when completed will be presented to the offices of Assistant Chief Counsel for appropriate disposition.

SENATOR LAUTENBERG: As I understand it, you are developing an advisory circular on cockpit resource management for training of air carrier flightcrews. When will this advisory circular be issued, and what guidance do you plan to provide to your principal operations inspectors regarding the implementation of this circular?

ANSWER: A draft advisory circular pertaining to cockpit resource management training was published in the Federal Register in February 1989 for public comment. The advisory circular presents guidelines for developing, implementing, and evaluating a cockpit resource management training program. This training program is designed to be a regular part of all training for crewmembers. The FAA is reviewing the comments and expects to issue the advisory circular by September 1, 1989.

In addition to the advisory circular, the Air Transportation Inspector's Handbook will include guidance for inspectors evaluating operator cockpit management resource courses.

COMMUTER AIRLINE MONITORING

SENATOR LAUTENBERG: Last December, it was reported that a nine-month FAA inspection disclosed "systemic deficiencies" with the management of our nation's commuter airlines. Among the problem areas identified were lack of management experience, substandard administration of training, and deficient aircraft inspection programs. What actions have you taken as a result of this nine-month inspection?

ANSWER: In an effort to resolve the discrepancies found during the inspection of commuter airlines, meetings were held with each commuter air carrier to discuss the inspection findings and how the findings relate to its operation. Additionally, the FAA has conducted regional seminars addressing specific inspection problems and solutions.

Workshops were held for all principal inspectors. Inspection findings were discussed as well as how to identify systemic problems, the elements of corrective action, and decision-making simulation designed to highlight the elements of effective management.

Commuter accident rates dropped sharply in 1988.

SENATOR LAUTENBERG: Last year, the Aviation Safety Commission recommended (p.39) that you move toward reducing differences in operating practices between regional (or commuter) carriers and larger jet carriers. The Commission stated that you should require that all carriers eventually meet the operating requirements of Part 121 operations. What has been done during the past year to reduce these differences in operating practices?

ANSWER: In September 1987, a joint government/industry task force on flightcrew performance was formed. Among other things, the task force recommended that Part 135 commuter air carriers comply with the crewmember qualification and training requirements of Part 121. The FAA has developed a notice of proposed rulemaking, entitled "Air Carrier Training Programs," which is scheduled to be issued during FY 1989.

The FAA also has developed an automated method of issuing operations specifications. Under this program, all air carriers are being issued new operations specifications, which standardize conditions and limitations for all similarly situated operators. Aviation safety inspector handbooks have been revised to standardize the process used to certificate Part 121 and Part 135 operators.

MONITORING CHARTER AIRLINES

SENATOR LAUTENBERG: The recent crash of a U.S. charter aircraft in the Azores has raised some concerns about your monitoring of charter airlines. A significant portion of charter airlines' maintenance and training is performed by outside contractors. To what extent does this affect your ability to monitor the safety of these operations?

ANSWER: A review of today's air carrier environment shows increasing use of contract support for maintenance and training. The FAA requires each item contracted out to be clearly identified by the carrier to the FAA. These contractual agreements must be authorized by the FAA on the air carrier's operations specifications before service can begin. When the contract service is located a distance from the air carrier's primary facility, the FAA certificate-holding office notifies a local Flight Standards District Office to ensure adequate surveillance is maintained. Because of this potential problem with remote contract support, the FAA has established the position of geographic inspector. Geographic inspectors are responsible for the surveillance of these contract sites. The national program guidelines also have been revised to clarify surveillance requirements on contract training and maintenance activities applicable to all air carriers.

IMPACT '88

SENATOR LAUTENBERG: What is the status of Impact '88, in which a number of initiatives were proposed to upgrade commuter air carrier operations and training?

ANSWER: As stated previously, the FAA has initiated rulemaking, revised its method of issuing operations specifications, and developed inspector guidance which will align commuter air carrier operations more closely with Part 121 operations. Additionally, a Special Federal Aviation Regulations (SFAR) and companion advisory circular concerning Advanced Qualification Programs were published in the Federal Register for comment. The programs would support the following initiatives:

- Required cockpit resource management training

- o Train to proficiency concept (instead of programmed hours)
- o Training accomplished under air carrier certificate
- o Required Line-Oriented Flight Training
- o Required instructor and evaluator training and qualification certification
- o Encourage use of a range of trainers and simulators
- o Enable training centers to support certificated operator's training

Comments closed on April 24, 1989 and the FAA expects to issue final documents in FY 1990. The FAA is developing a program management plan for the advanced qualification program which identifies required resources and responsibilities.

The FAA also is developing a draft advisory circular regarding cockpit resource management. The draft advisory circular was published in the Federal Register and comments are being reviewed.

SENATOR LAUTENBERG: To what extent are the procedures and practices you employ to monitor charters different from those used to monitor other airlines?

ANSWER: National program guidelines establish work program criteria and set priorities for Flight Standards field elements. They specify a baseline surveillance program to ensure systematic accomplishment of inspection activities. The depth and frequency of scheduled inspections are determined by factors such as the size and complexity of an air carrier's operations. All air operators, including air carriers, commuters, and air taxi operators, are included in the program guidelines. Types of inspections and inspection techniques generally are the same for all air operators.

NOISE REGULATIONS

SENATOR LAUTENBERG: It is obvious that, if we are going to have a siginificant impact on the airport capacity problem at our major hubs, we are also going to have to address the aircraft noise issue. Last fall it was reported that about 4500 U.S. airports, including 90 percent of the hub airports, have imposed some form of noise restrictions. The restrictions range from preferential runway rules to bans on certain types of aircraft. What is your position regarding federal preemption of these conflicting local noise regulations?

ANSWER: FAA's position is that, except for airport owners and operators, no state or local government has the authority to restrict airport use for noise purposes. Federal pre-emption in this area is complete. However, airport owners may issue reasonable noise regulations that do not unduly burden interstate or foreign commerce, discriminate unjustly, reduce the level of aviation safety, interfere with the FAA's management of the navigable airspace, or adversely affect any other powers of the FAA Administrator. The FAR Part 150 Noise Compatibility Program is the FAA's primary analytical tool for appraising the possible impact of any proposed airport operational constraints or restrictions on interstate or foreign commerce.

LAND USE REGULATION

SENATOR LAUTENBERG: Which six state aviation agencies have a role in regulating land use around airports? What actions are you taking to assure that local airport sponsors are able to achieve compatible land use around their airports?

ANSWER: Three states, Minnesota, Maryland, and Texas, have provisions in their laws for overlay type zoning districts for compatible land use around airports. The Minnesota law is in specific reference to the Minneapolis/St. Paul International Airport. The Maryland law applies only to State-owned airports within the State. The Texas law empowers airport authorities meeting certain requirements to enact overlay type zoning districts to control noise-sensitive land uses. Of the three, Maryland's has been the most exercised and effective.

Three other states, California, Oregon, and Florida, exercise strong State influence over land use and development in the vicinity of airports. California requires local governments within a public airport's noise zones to establish Airport Area Land Use Commissions. The Oregon law requires cities and counties to develop comprehensive land use plans to include the protection of all public use transportation facilities, including airports. The State's Division of Aeronautics then requires implementation of airport overlay zones for protection against noncompatible land use and obstructions. The Florida Division of Aeronautics is very active in working with local governments to achieve compatible land use through zoning and development controls.

FAA is taking two primary actions to assure that local airport sponsors are able to achieve compatible land use around their airports. The first is the inclusion of a requirement within the Grant Assurances accompanying an FAA grant for airport development that they will take appropriate action, including the adoption of zoning laws, to the extent reasonable, to restrict the use of land adjacent to or in the immediate vicinity of the airport to activities and purposes compatible with normal airport operations, including landing and takeoff of aircraft. In addition, if the project is for noise compatibility program implementation, it will not cause or permit any change in land use, within its jurisdiction, that will reduce the compatibility, with respect to the airport, of the noise compatibility program measures upon which Federal funds have been expended. The second action is the FAR Part 150 Airport Noise Compatibility Planning Program, which is a comprehensive planning and implementation effort to identify, resolve, and protect against future noncompatible uses around the subject airport. Forty-six such programs have been approved by the FAA to date, and an additional 159 or more are in some state of preparation or review.

SENATOR LAUTENBERG: How effective has your Part 150 noise compatibility program been in achieving compatible land use around airports?

ANSWER: There have been 46 Airport Noise Compatibility Programs completed and approved to date. An additional 159 or more are in preparation or review. We have estimated that there are some 350 to 400 airports across the nation which could benefit from conducting a Part 150 study. For those airports which have completed programs, the Part 150 program is the most comprehensive and effective program for compatibility which has yet to be attempted by either State or Federal Government. FAA is preparing a study of the Part 150 program to see if there are ways in which it can be made more effective and less burdensome. In conjunction with that study, we have solicited comments from the Public on the Part 150 Program (53 FR 44554, 11/3/88). This Report to Congress is due at the end of June 1989.

Not all airports having significant noise compatibility problems are participating in the Part 150 Program, and this includes some of

the nation's largest and most noise-impacted airports. In other instances, full implementation of the land use side of a quite valid noise compatibility program is dependent upon land use control authorities not under the jurisdiction of the airport's operator, and some form of additional cooperative planning and implementation effort may be required in order to achieve full long-term compatibility. These are questions FAA plans to address in part in the upcoming Report to Congress on the Part 150 Program.

STAGE 2 AIRCRAFT

SENATOR LAUTENBERG: What is your position on imposing a deadline on the operation of Stage 2 aircraft?

ANSWER: The FAA is working with Secretary Skinner to formulate a comprehensive transportation policy which will include addressing the problems of airport access and capacity resulting from noise-based limitations. In addition, the FAA is finalizing a report requested by Congress on the status of the U.S. Stage 2 commercial aircraft fleet in which the cost benefits of various Stage 2 operating deadlines are addressed.

EXPANDED EAST COAST PLAN

SENATOR LAUTENBERG: Last year, in testimony before this subcommittee, both Secretary Burnley and FAA Administrator McArtor pledged to make serious efforts to address the noise problems relating to the Expanded East Coast Plan (EECP). Do those commitments still apply?

ANSWER: The FAA remains committed to alleviating, to the extent consistent with the safe and efficient administration of the airways, the noise problems that have surfaced subsequent to the implementation of the EECP.

SENATOR LAUTENBERG: Please outline the changes to the EECP that have taken place over the last year. What further changes are underway, or in planning? What have been the results of those changes?

ANSWER: Many adjustments have occurred in the past year. Most of these subtle changes were made to minimize aircraft noise while improving system efficiencies. The following are examples and results of those changes. Random vectoring around the Broadway (BWZ) Very High Frequency Omni-directional Range (VOR) was instituted on a 24-hour basis. This program has proven to be 95% effective. A Distance Measuring Equipment (DME) fix is to be established west of the BWZ VOR to facilitate random vectoring around the VOR to avoid impacting noise sensitive areas. Effective January 9, 1989 Newark Runway 22 departures are cleared to 5,000 feet (except when LaGuardia is landing Runway 4 or 31). This allows Runway 22 departures to reach higher altitudes as they cross west of Newark Airport. In early January the New York Terminal Radar Approach Control Facility (TRACON) conducted an extensive evaluation on rerouting propeller aircraft, which went from Carmel, New York, west to Sparta, New Jersey, and then to Solberg, New Jersey; in addition the altitudes of the aircraft were raised from 7,000 to 8,000 feet. The benefit is that additional airspace is available for general aviation aircraft, including high performance jet aircraft, operating from Teterboro and Morristown Airports. Most importantly, these aircraft can now climb unrestricted, thereby reaching higher altitudes sooner and providing noise relief to some

noise sensitive areas in New Jersey. Additionally, the Eastern Regional Administrator has created a four-person, full-time review team to perform a comprehensive review of the EECP to find ways to mitigate aircraft noise over northern New Jersey. This team, which is authorized for a 2-year period, will report on its progress to the Executive Review Committee for New Jersey Aircraft Noise

SENATOR LAUTENBERG: Representatives of New Jersey residents affected by aircraft noise have asked to inquire, on their behalf, if the FAA has considered or is considering a complete roll-back of the EECP? If not, why?

ANSWER: The EECP took over 7 years to plan and implement and was the largest effort of its type ever undertaken by the Federal Aviation Administration (FAA). Thousands of airspace changes were made which affected airports as far away as Dallas, Texas. It would not be possible to just revert to preplan conditions.

Furthermore, the implementation of the EECP has led to a significant reduction in flight delays. Consequently, it is impractical from an economic and consumer perspective to revert to preplan conditions. It is more practical to seek a solution that is a compromise between the old and new procedures. To this end, a working group under the leadership of the Regional Administrator has been assembled in the FAA's Eastern Regional Office to determine actions which can be taken in an attempt to lessen the noise problem in the New Jersey area. This working group is comprised of a four-person team which will perform a comprehensive review of the EECP to find ways to mitigate aircraft noise over New Jersey. This team, which is authorized for a 2-year period, will report on its progress to the Executive Review Committee for New Jersey Aircraft Noise and the FAA.

LEASED TELECOMMUNICATIONS

SENATOR LAUTENBERG: Leased telecommunications costs have been one of your fastest growing activities. What do you see happening to these costs in the future? For example, to what extent will technological advancements offset the costs associated with the anticipated growth of the national airspace system?

ANSWER: Leased telecommunications costs are projected to increase significantly (about 20%) in FY 1991, directly because of the introduction of new NAS Plan systems. However, in subsequent years, we expect increases of only about 7% per year, despite the anticipated growth of the NAS. Technological advances such as Data Multiplexing Network (DMN), Radio Communications Link (RCL), National Airspace Data Interchange Network (NADIN) 1A, NADIN II and voice switching systems (VSCS and ICSS) will offset much of the growth, and will save or avoid over $200 million per year by 1994.

SENATOR LAUTENBERG: Last year, you estimated that the fiscal year 1990 cost increase for your data multiplexing network would be $1,453,000. However, you are now requesting an increase of $5,205,000 for this program. What was the reason for the 250 percent change in this cost increase?

ANSWER: In FY 1990, we now expect to deploy major parts of the DMN Phase 3, Automated Weather Observing System (AWOS), Next Generation Weather Radar (NEXRAD), and Remote Maintenance Monitor (RMM) which has caused a greater utilization for these systems than originally projected.

SENATOR LAUTENBERG: What is the MITRE Telecommunications Contract?

ANSWER: The MITRE contract will provide support needed for Telecommunications Management and Operations (TM&O) in network planning, operations, administration and maintenance projects, and data systems requirements.

SENATOR LAUTENBERG: What is the total cost of Telecommunications Management and Operations (contract vs. in-house)?
ANSWER: The estimated cost for Telecommunications Management and Operations in FY 1990 is approximately $19,000,000 for contract and $3,800,000 for in-house support.

SENATOR LAUTENBERG: Your 1990 request for leased telecommunications contains $612,000 for "follow-on costs associated with the implementation of ...VSCS." The request further states that "funding is required for installation of operational VSCSs at ARTCCs/ACFs and the New York TRACON, and supporting VSCSs at the Technical Center and Academy." According to the VSCS schedule, the only VSCS that will be installed during FY 1990 is the one at the Technical Center (scheduled for June 1990). The next scheduled installation is at the Academy in July 1991. Why do you need this funding now to prepare for installations that will not take place until future years?
ANSWER: Although VSCS installations will take place in future years, we are proceeding to reconfigure and reterminate circuits so that VSCS installation testing and cutover can proceed smoothly and efficiently. This effort includes standardizing technical characteristics of existing circuits and relocating them to a master demarcation system. This work needs to start before VSCS installation.

SENATOR LAUTENBERG: In light of that schedule, how can you claim program savings from implementation of VSCS in FY 1990?
ANSWER: Based upon the current VSCS schedule, we will probably not achieve the program savings projected for fiscal Year 1990 when the budget was first prepared.

RADIO COMMUNICATIONS LINK PROJECT

SENATOR LAUTENBERG: Regarding the RCL project, is FAA deploying an analog system, even though NAS Plan Programs anticipate using digital communications? Won't this approach require data to be converted from digital to analog to be transmitted via RCL, and then converted back to digital to be processed by NAS computer systems? Is this a cost effective system design in an age of digital communications, and if not, why is FAA deploying an analog system?
ANSWER: The RCL system is an analog system and does require digital data to be converted for transmission.
At the time of contract award for the RCL system there was an operational requirement for transmission of analog information (radar broadband video).
Subsequently, the transmission of radar broadband video was phased-out eliminating the need for an analog system. As a result a technical study initiated in August 1988 determined that it is feasible to convert the existing analog system to digital operation. However, considering the added cost, and delay in program completion, it was decided to complete the network with analog radios and plan on future conversion to a digital system. The current analog system is the most cost effective approach based on our current implementation status and near-term needs.

NAS PLAN INSTALLATION AND MATERIEL SERVICES

SENATOR LAUTENBERG: It appears that nearly 100 new personnel are requested for the equipment exchange and repair program and for procurement. How many people in total are involved in these activities? (Include contract personnel.)

ANSWER: There are 156 total positions currently involved in the exchange and repair program. In the procurement area we currently have 225 employees and 42 of them are contract personnel.

SENATOR LAUTENBERG: What contracts exist (and the costs) for installation and for repairs?

ANSWER: Currently in place we have 37 annual contracts for an estimated value of $5 million and the balance of the exchange and repair commercial activity is through several thousand individual purchase orders (under $25,000) with an estimated value of $2.3 million. Also, the FEDSTRIP/MILSTRIP commercial repair costs are $1.7 million and the 2nd generation VORTAC dedicated repair is $2 million.

RESEARCH AND DEVELOPMENT DIRECTION

SENATOR LAUTENBERG: For overall coordination and monitoring of the R&D effort, you are requesting $16.3 million. Why so much? How many people are employed in this area?

ANSWER: In FY 1990, 143 positions and 137 FTE will be devoted to coordinating and monitoring the R&D effort and the NAS Plan effort.

SENATOR LAUTENBERG: What is spent at the Technical Center? How many people are employed there? List the major areas of study at the Technical Center and the amount of resources devoted to each.

ANSWER: In FY 1990, the FAA Technical Center will have obligations in all appropriations of approximately $140 million and will employ 1,255 employees. Major area of study and the resources devoted to each area are provided in the following table:

Area of Study	Employees	Funding (Millions)
Air Traffic Control	199	$25,318.0
Advanced Computer	36	2,847.0
Navigation	9	977.0
Aviation Weather	11	2,103.0
Aviation Medicine	2	1,046.0
Aircraft Safety	120	21,569.0
En Route Traffic Control	127	12,870.0
Airport Traffic Control	29	5,440.0
Flight Service Stations	14	1,210.0
Air Navigation	23	4,134.0
Logistics Support/Tenant Services	400	44,000.0
Housing & Miscellaneous	285	2,901.0
Facilities & Leases	---	12,950.0
TOTAL	1255	137,365.0

SIMULATION MODEL (SIMMOD)

SENATOR LAUTENBERG: What is "SIMMOD" ?

ANSWER: "SIMMOD" stands for SIMulation MODel. It is a computer simulation model, under development by the Federal Aviation Administration (FAA). The model is designed to predict the effect of changes to airports, airspace routes, aircraft traffic and air traffic control rules. It computes and produces estimates of aircraft travel times, aircraft delays and aircraft fuel consumption. The model can be used to study a single airport, several neighboring airports or enroute airspace. SIMMOD simulates the movement of aircraft both on the ground and in the air according to air traffic control rules. As aircraft taxi or fly through the computer simulation, SIMMOD resolves conflicts just as would be done by air traffic controllers.

SENATOR LAUTENBERG: How is it to be used ?

ANSWER: SIMMOD will be used by both the FAA, private consultants, airlines and airport boards. The initial public distribution version of SIMMOD will be released this summer. The FAA has already been using a pre-release version of the model to study capacity improvements at several major airports. The FAA is currently in the process of using SIMMOD to study the Dallas/Fort Worth, Chicago, Denver, Los Angeles, Raleigh/Durham and San Diego airspace and airports. A major U.S. air carrier is using the model to predict and improve its on-time performance.

AIRPORTS ADMINISTRATION

SENATOR LAUTENBERG: You are requesting 515 positions and $36,708,000 for administration of your Airports program. On page 151 you are requesting an increase of 40 positions. However, on page 147, two of your three workload indicators are projected to decrease in fiscal year 1990. Do you really need more personnel if your workload is declining?

ANSWER: The two indicators mentioned: 1) estimated number of grants issued, and 2) grant total dollars, are decreasing only slightly in our request compared to FY 1989 actuals. In fact, our request for positions is not based on support for grant administration. We are basing our increase on increased workload in safety and capacity programs. The environmental issue's workload is also expanding. A slight drop in the estimated grant program would not offset the other increases. Also, even our grant program has been growing for years without compensating increases in staffing.

SENATOR LAUTENBERG: On page 152 you are requesting an increase of $283,000 for environmental studies in connection with proposed grant agreements. Don't the grant recipients do these environmental impact studies?

ANSWER: A sponsor can use grant funds to perform an environmental assessment. However, it is an FAA responsibility to make the Federal environmental funding and develop a Federal environmental position (FONSI or as the result of an EIS). Contract money is requested for some of this workload. Additionally, this request for $283,000 supports other work in our field offices such as obstruction surveys and appraisal services.

SENATOR LAUTENBERG: How much is requested for airport certification? Break down these costs by airport size and type of

traffic.

ANSWER: Eleven new positions are requested to support the expansion of airport certification and safety enhancement at commuter airports not currently certificated under FAR Part 139. These credentialed inspectors will supplement the existing staff of approximately 45 inspectors that are responsible for the inspection and oversight of approximately 650 certificated airports. Existing certificated airports receive service by scheduled or unscheduled air carriers with 31 or more passenger seats. FAA's proposal to expand the program to include airports served by scheduled commuters using aircraft with more than 30 seats could add approximately 110 airports. Using the General Accounting Office (GAO) recommendation to expand the scheduled service regardless of aircraft size, could add over 300 airports. The $350,000 contract support requested is directed at safety enhancement at all sizes and types of airports with varying traffic levels. Many of the video tapes to be produced on Part 139 safety issues are applicable to smaller airports thus increasing the cost effectiveness of the funds expended.

SENATOR LAUTENBERG: How many people are involved with the grant program? If the majority of this program is an entitlement, why so many people?

ANSWER: About 20% of our current regional workload is directly related to airport development grants and grant administration. While these grants are funded by "entitlement" funds, much workload is still involved in the projects. Project applications must be reviewed for eligibility and adequate justification. Reviews must be made to determine that the sponsor is in compliance with Federal standards. Contracts and specifications must be reviewed. After grant award project management, including inspections, continues until completion of the project which can take several years. Requested increases for the program are not for grant management. These positions will be used in planning, environmental areas, and for special studies that will enhance system capacity.

SUPPORT SERVICES

SENATOR LAUTENBERG: You are requesting 24 additional positions for Office of the Chief Counsel. Last year you indicated that there were 7,903 pending enforcement cases. What is the current backlog?

ANSWER: To date, the current FY 1989 backlog of cases received in the legal offices and not yet initiated is approximately 6,312 cases. This number, however, does not represent the total number of cases in the legal offices, as the total would include cases in which initial enforcement action has been taken and which are awaiting further legal action, e.g., informal conferences, hearings, or settlement (there are approximately 846 cases currently on hand that are before administrative law judges and the court of appeals). In FY 1988 our backlog was 7,903 and in FY 1987, 4,500.

SENATOR LAUTENBERG: You also requested 100 additional attorney and legal support positions under your aviation standards program (p. 129). How many attorney and legal support positions do you currently have?

ANSWER: In our regional and center legal offices, there are 89 attorney positions and 44 legal support staff positions.

SENATOR LAUTENBERG: Last year it was indicated that there were about 1,100 claims pending against the government amounting to about

$18.5 billion. What is the current situation?

ANSWER: At the present time there are just 900 claims pending adjudication and the total amount demanded amounts to $19.6 billion.

SENATOR LAUTENBERG: Generally describe what these claims are for.

ANSWER: These are claims for property damage, personal injury on wrongful deaths, and they are filed pursuant to the Federal Tort Claims Act. For the most part, the claims arise out of aircraft accidents where the claimant's are alleging negligence in the operation or maintenance of our air traffic control or air navigation systems.

CORN AND OATS

SENATOR LAUTENBERG: On page 159, what is the total amount of funds your fiscal year 1990 budget includes for CORN contractor support and OATS contractor support?

ANSWER: The amount of funds included in the FY 1990 budget for Computer Resources Nucleus (CORN) contractor support is $2,520,000 and $1,760,000 for Office Automation Technology and Services (OATS).

SENATOR LAUTENBERG: Have you actually purchased any equipment under the OATS program?

ANSWER: No, there has not been any equipment purchased because the OATS contract has not been awarded. It is expected to be awarded the last quarter of FY 1989.

AVIATION INSURANCE REVOLVING FUND

SENATOR LAUTENBERG: What is the present balance in the aviation insurance revolving fund?

ANSWER: The balance in the fund as of April 4, 1989, is $42.9 million.

SENATOR LAUTENBERG: Do you have any claims pending?

ANSWER: No claims are pending as of April 4, 1989.

SENATOR LAUTENBERG: Why are your expenses under this fund estimated to increase from $85,000 in 1988 to $163,000 in 1989?

ANSWER: The $85,000 in FY 1988 represents only direct program expenses in a year when one of the positions funded by the Aviation Insurance Revolving Fund was vacant for a considerable period of time. Also, this amount does not include any funds for claims which would be paid initially by the FAA but for which the Departments of Defense or State would reimburse FAA. The $163,000 assumes no lapse in the two positions funded by the Aviation Insurance Revolving Fund and includes $50,000 for reimbursable claims expenses.

SENATOR LAUTENBERG: What is the contingent liability under this program?

ANSWER: The Government's contingent liability for Civil Reserve Air Fleet (CRAF) aircraft under the Aviation Insurance Program is approximately $206.7 billion. The contingent liability for insurance of other aircraft cannot be quantified.

SENATOR LAUTENBERG: Have you ever paid any claims from this fund? If so, when?

ANSWER: The following four claims were paid under the Aviation

Insurance Program but not from the fund: Continental Airlines - $625.76 on February 18, 1989; World Airways - $22,815.79 on March 5, 1975; Trans-International - $122,469.14 on March 21, 1975; and Airlift International - $5,431.00 on April 2, 1975.

REORGANIZATION

SENATOR LAUTENBERG: In the last reorganization, the Program Engineering Service was placed under Airway Facilities, a separate organization from the rest of the NAS Plan effort. As a result, many NAS Plan projects, such as Long Range Radars and the Radio Communications Link, are not under the Associate Administrator for NAS Development. What was your rationale for splitting the NAS projects between two Associate Administrators?

ANSWER: The FAA reorganization was accomplished by placing service level organizations and their functions under applicable Executive Directors. The Program Engineering Service was placed under Airway Facilities since the majority of the organization mission is to provide engineering acquisition support to sustain or rehabilitate existing NAS facilities, systems, or equipment. These functions are best managed by the straight line organization responsible for the day-to-day operation and maintenance of the NAS facilities.

SENATOR LAUTENBERG: Can you assure the Committee that coordination problems are not affecting projects under separate organizations?

ANSWER: The FAA's last reorganization in no way diminished our commitment or ability to implement the NAS Plan. Our culture promotes the resolution of most interproject concerns at organizational levels, which were for the most part unaffected by the last reorganization.

SENATOR LAUTENBERG: What management authority can the Associate Administrator for NAS Development exercise for those projects not under his purview?

ANSWER: The Associate Administrator for NAS Development is the lead executive on NAS Plan matters. As such, he has significant influence on decision-making that affects the NAS Plan as a whole.

NAS PLAN EQUIPMENT WARRANTIES

SENATOR LAUTENBERG: The Congress requires warranties for all major Coast Guard acquisitions. In a recent report, the DOT Inspector General stated that a very strong case can be made for making warranty use mandatory for systems acquisitions by other DOT modal administrations. Do you have warranties on any of your major NAS Plan systems? If so, which ones? If not, why not?

ANSWER: Yes, we do on three of them: the radar microwave link; our purchase of the 19 light twin-turbo-prop flight inspection aircraft; and our ASR-4 radar systems. We look at warranties and consider them on every major system acquisition. If we decide not to require one, it's because we feel it wouldn't be cost effective for our own field maintenance people and staff to adequately handle the maintenance of the item.

NAS PLAN PROCUREMENT PROCESS

SENATOR LAUTENBERG: We hear a lot of complaints about the onerous federal procurement process that FAA has to follow, and that it is resulting in costly, unwanted delays in the NAS Plan. If FAA was "unshackled" from federal procurement regulations, how would you change things?

ANSWER: If FAA was taken completely out from under the requirements of the federal procurement regulations, we would conduct business in a manner that is much closer to the commercial sector than we are now able to do. We think that our purchasing and contracting would be conducted in a more expeditious and efficient manner by continuing to use the competitive marketplace to the extent possible, but having the ability to eliminate those contractors that have not proven to be good suppliers to the FAA in the past. In addition, it would also be easier to accomplish changes to existing contracts using less cumbersome procedures. To a greater extent, we would be able to select contractors that provide the overall best value to the agency, in spite of the fact that they do not offer the lowest initial cost. While it is possible under existing laws and regulations to select other than the lowest bidder, it is difficult.

NAS PLAN FUNDING

SENATOR LAUTENBERG: What are your criteria for including or excluding a NAS Plan project under the full funding concept?

ANSWER: The criteria for including or excluding a NAS project under the full funding concept usually is decided based on how reasonably a project can be broken into multiyear parts. Large-scale undertakings that usually require at least 1-year for contract negotiations and another 2-3 years for first article delivery and testing are examples of projects that would be considered for going off full funding. Another consideration would be projects where spare parts, site acquisition, and training can be deferred usually until future years without impacting the project's schedule.

EXPEDITING COMPUTER PROCUREMENTS

SENATOR LAUTENBERG: Last year, FAA testified that if it were exempted from the requirement to obtain individual delegations of procurement authority from GSA, the acquisition of needed ADP equipment could be expedited and delays avoided. If that is the case, what has FAA or the Department done to obtain relief from the requirement?

ANSWER: In August 1988 the GSA granted the Department of Transportation a blanket delegation of procurement authority for FAA's unique operational telecommunications requirements. The exception is based on the need to respond expediently to special purpose network requirements associated with the regulation and protection of air traffic, including national security commitments. The FAA legal staff drafted proposed legislation which would exempt the FAA from GSA procurement authority for all ADP equipment where air safety and control of traffic is concerned. However, nothing appears to have come of this proposal.

ATC FACILITY CONSOLIDATIONS

SENATOR LAUTENBERG: The Committee expects FAA to reanalyze its consolidation plans for air traffic control terminal facilities as part of the NAS Plan. Has the analysis been completed?

ANSWER: No. The cost effectiveness analysis which the committee requested has been reviewed and a statement of work has been prepared. A contract is expected to be awarded by mid June 1989 for performance of the analysis.

SENATOR LAUTENBERG: When will the results be available?

ANSWER: We expect to be able to provide the Committee with our interim results in April 1990 and final results by early 1991.

SENATOR LAUTENBERG: Are you requesting any funds in fiscal year 1990 to support consolidation plans other than the Los Angeles basin?

ANSWER: No. The only funds requested for the Area Control Facility (ACF) program are for the program office to assist in completing required long range planning, human resource activities, and other operational air traffic control studies related to the ACF program.

TECHNICAL SUPPORT SERVICES CONTRACT

SENATOR LAUTENBERG: In August 1988, the Federal Aviation Administration (FAA) awarded a technical support services contract (TSSC) to Raytheon Service Company to help with the installation of National Airspace System (NAS) equipment at field locations. The $368 million contract will provide FAA with an additional 3,800 staff years of field support over a 9-year period. However, as of January 19, 1989, six of the nine FAA regions had not issued any work authorization to the TSSC. Why is the utilization of the TSSC starting so slowly?

ANSWER: The TSSC program status as of May 2, 1989 shows that 8 of 9 regions have issued work releases to the contractor representing 12% of the funded work in progress.

The TSSC program utilization started slowly due to the need to train the project engineers in how to prepare work release documentation.

Work releases issued represent work for site surveys, Contractor's Site Engineering Reports, and Resident Engineer Services which accounts for the low dollar value. We expect the amount of work to increase substantially in the near future.

SENATOR LAUTENBERG: Do you have any concerns about Raytheon's ability to hire sufficient staff?

ANSWER: We have no concerns about the contractor's ability to hire sufficient staff.

REGIONAL PROJECT MANAGEMENT SYSTEM

SENATOR LAUTENBERG: When will the Regional Project Management System (RPMS) be completed?

ANSWER: The initial operational RPMS software for the regions will be delivered by June 30, 1989. Between June 30 and September 30, 1989, the regions will initially load the regional installation networks. While the basic system is scheduled to be operational with the data loaded as of October 1, 1989, additional functions

will be added during FY 1990.

SENATOR LAUTENBERG: Why is this system critical to regional management of National Airspace System (NAS) projects?

ANSWER: RPMS provides the regions with the following capabilities:

- o Automated budget submission for Facilities and Equipment (F&E) projects;
- o Advance identification of resource shortages based on project requirement estimates and expected availabilities;
- o Detailed planning and scheduling at the project engineer level
- o Comprehensive planning and scheduling of multi-project situations such as Air Route Traffic Control Centers (ARTCC) at the management level;
- o Automated tracking of status of all installation projects for headquarters level management.

SENATOR LAUTENBERG: Is this the system that joins staffing needs to implementation tasks and schedule tracking?

ANSWER: RPMS joins the existing F&E Manpower System (FEMS) which estimates project resource requirements overall with the F&E Network System which breaks the projects into major implementation tasks so that resource estimating will be at the major task level. The RPMS combination of requirements estimates and implementation task networks will be statused with actual performance so that schedules can be tracked.

SENATOR LAUTENBERG: Will it allow you to know if you have sufficient staff to meet the current schedule?

ANSWER: RPMS identifies the resource requirements by resource type (Civil Engineer, Electronics Engineer, Installer, etc.) as well as the expected availabilities by resource type from various sources including the FAA, Systems Engineering and Integration contractors, Architectural and Engineering Contracts, Technical Support Services Contractors, Department of Defense and Maintenance Operations. The difference between availabilities and requirements is the measure of staffing adequacy.

SENATOR LAUTENBERG: How many staff years would be needed at the enroute centers to implement NAS projects?

ANSWER: A national team is reviewing the expected impact of NAS implementation on the enroute centers at the Auburn, Washington ARTCC. The study of center resource requirements and identified available resources will be completed in August/September 1989.

PERSONAL, COMPENSATION, AND BENEFITS

SENATOR LAUTENBERG: You are requesting 206 additional full-time permanent F&E positions in order to help with the implementation of NAS systems.

FAA has had about 200 temporary F&E personnel working at its field locations. Do the newly requested 206 positions represent needs above the temporary personnel employed in the past, or do they represent a conversion of the temporaries to full-time status?

ANSWER: They represent a conversion of the temporaries to full-time status.

SENATOR LAUTENBERG: Do you feel that your planned F&E work force will be adequate to alleviate equipment storage problems noted

by GAO, implement new NAS systems, and support other projects such as the new Denver Airport?

ANSWER: Our concern is real and we are currently reviewing whether additional positions will be needed in FY 1991 to provide adequate personnel to meet the installation requirements associated with the NAS Plan.

DALLAS/FORT WORTH METROPLEX

SENATOR LAUTENBERG: In your budget justification, you stated that an FAA Task Force working with airport authorities, major air carriers, general aviation, and the cities of Dallas and Fort Worth, is developing a total system approach for the future growth of the Dallas/Fort Worth Metroplex. Your estimate of the total cost for this project is about $110 million, and you are asking for $54.3 million in fiscal year 1990 funds. The request includes costs to expand the TRACON, establish a satellite control tower, and equipment needed to redesign arrival and departure routes. Have schedules been established for construction of the new satellite tower and expansion of the TRACON?

ANSWER: Yes. The FAA task force is working with all parties concerned to have the TRACON expansion and the east ATCT ready upon the completion of runways 16L/34R. Construction contracts on both projects must be awarded within 30 days after funds become available to ensure the air traffic facilities are operational when the east runway is completed. Runways 16L/34R is scheduled to open in mid to late 1991 and runways 16R/34L will open 18 to 24 months later.

SENATOR LAUTENBERG: About $29.4 million of the $54.3 million request is for regional support. How much of these funds are for FAA in-house personnel and how much will be for contract costs? Will there be one prime contractor for the whole project?

ANSWER: None of the fiscal year 1990 funds will be used for FAA in-house personnel. There will be several contractors used for the different projects that will be performed in fiscal year 1990.

SENATOR LAUTENBERG: Part of the fiscal year 1990 request is for navigational aids needed for new runways 16L/34R and 16R/34L. How much of the fiscal year 1990 request applies to the new runways? Are you satisfied that the runway construction will proceed on schedule?

ANSWER: $4,800,000. The runway navigational aids (ILS CAT I, MALSR, RVR) that are contained in the fiscal year 1990 budget is for the new runways. The Dallas/Fort Worth Airport Board is projecting that runways 16L/34R on the east side will be finished and operational by mid to late 1991 and runways 16R/34L on the west side will open approximately 18 to 24 months later.

SENATOR LAUTENBERG: We understand that all of the F&E costs for the Dallas/Fort Worth Project have not been baselined through the NAS Change Proposal (NCP) process that is used by FAA to approve all ATC modernization projects. Why has this project not gone through the NCP process, and what means have you used to assure that the estimated project costs are accurate?

ANSWER: This project has gone through the NCP process and approved by the National Airspace System Control Configuration Board on February 1, 1989. Cost estimates have been validated using

historical cost data for each type of equipment.

LOS ANGELES BASIN FACILITIES CONSOLIDATION

SENATOR LAUTENBERG: This year you are requesting over $19 million to procure various air traffic control equipment, out of an estimated total cost of about $103 million to consolidate terminal radar approach control (TRACON) facilities in the Los Angeles basin. What are you actually going to do there?

ANSWER: The Terminal Los Angeles Basin Service (T-LABS) will combine four major terminal approach control (TRACON) facilities into one facility. The consolidation of the Los Angeles, Coast (El Toro), Ontario, and Burbank TRACON's will provide a more flexible, efficient, and ultimately, safer method of managing and directing air traffic in the Los Angeles Basin.

SENATOR LAUTENBERG: Are you planning to deploy the Advanced Automation System (AAS) to the consolidated TRACON? Or, will the AAS be deployed only to en route centers, thus closing the TRACONs within a few years of the consolidation?

ANSWER: The consolidated facility is designed to accommodate the Advanced Automation System. Eventual consolidation of this facility will depend on cost benefit considerations once AAS equipment is made available in the late 1990s.

SENATOR LAUTENBERG: What needs to be done from an operational perspective at all TRACON's before the benefits of the L.A. Basin facilities consolidation can be achieved?

ANSWER: We must maintain these facilities in an operational mode throughout the transition period. In addition, we must continue the phased implementation of several airspace realignment projects necessary for consolidation.

SENATOR LAUTENBERG: Has an integrated air traffic management plan been completed, verifying that the concept is feasible? Provide a schedule which justifies the need for equipment acquisition in FY 1990..

ANSWER: The comprehensive Los Angeles Basin Study was completed and published in April 1988 and confirms the viability of the concept. Additionally, the results of the Los Angeles Airspace Capacity Project validated operational benefits of the project.

	T-LABS Schedule Dates
Contract Award	9/89
T-LABS Building Occupancy Date	10/92
Equipment Installation Begins	10/92
Checkout Complete	6/93
First Commissioning Complete	12/93

SENATOR LAUTENBERG: What is the procurement lead time for the ARTS IIIA equipment?

ANSWER: The lead time is 24 months from date ordered to delivery.

SYSTEM ENGINEERING AND INTEGRATION (SEI) CONTRACT

SENATOR LAUTENBERG: Have there been any changes to the SEI contract which would affect its oversight of NAS Plan

implementation? If so, describe them and what the impact will be on the NAS Plan implementation schedule.

ANSWER: No. There have been no major changes to the contract. However, some improvements in the evaluation of the SEI contractor's performance have been made which will improve oversight of NAS Plan activities. The FAA has placed additional emphasis on the program management functions performed by the SEI contractor. The FAA's process for evaluation of the SEI contractor's performance has been modified to place additional emphasis on performance of those functions involved: multiple projects, project interdependencies, budget, technical, and requirements tradeoffs within and between projects, as well as design, development, production, and operational tradeoffs.

TERMINAL DOPPLER WEATHER RADAR

SENATOR LAUTENBERG: When were the operational tests and evaluations completed?

ANSWER: The operational test and evaluation was completed on August 31, 1988.

SENATOR LAUTENBERG: What were the results of the OT&E?

ANSWER: The detection of hazardous microburst conditions met FAA requirements. These warnings were relayed to pilots in a timely manner. The Doppler weather radar displays were acceptable to air traffic controllers and supervisors.

SENATOR LAUTENBERG: Did the tests prove the operational suitability of the radars and display methods?

ANSWER: Yes. During the tests some display techniques were modified to improve suitability. The display methods and algorithms as used in the latter part of the test will be implemented in the Terminal Doppler Weather Radar.

SENATOR LAUTENBERG: Please update for the record the data on the TDWR implementation plan for the question listed on pp., 958 and 959, of last year's hearing record and show the same type of data for the locations included in your fiscal year 1990 request.

ANSWER: The implementation for TDWR will slip by 1 month for each location. This was caused by a delay in contract award by 1 month. The installation schedule for the FY 1990 procurement is as follows:

LOCATIONS	COST/M	DELIVERY DATE	OPERATIONAL DATE
Dallas* (Love Field)	$6.66	6/93	9/93
Salt Lake City*	"	7/93	10/93
Cleveland*	"	7/93	10/93
Washington Dulles*	"	7/93	10/93
Louisville	"	8/93	11/93
Dayton	"	8/93	11/93
Baltimore	"	8/93	11/93
Boston	"	9/93	12/93
Nashville	"	9/93	12/93
San Juan (Puerto Rico)	"	9/93	12/93
Andrews AFB	"	10/93	1/94
Chicago (O'Hare)	"	10/93	1/94

Atlanta	*	10/93	1/94
Miami	*	11/93	2/94
Dallas-Fort Worth	*	11/93	2/94
Denver	*	11/93	2/94
Orlando	*	12/93	3/94
Tampa	*	12/93	3/94
Houston	*	12/93	3/94
Saint Louis	*	1/94	4/94
Pittsburgh	*	1/94	4/94
Minneapolis	*	1/94	4/94
Memphis	*	2/94	5/94
Newark	*	2/94	5/94

* Previously reported as part of FY 1989 procurement but deferred until FY 1990

SPECIAL SURVEILLANCE RADAR

SENATOR LAUTENBERG: You are requesting $14 million for acquisition and contract maintenance of a TPQ-37 radar via a U.S. Army contract. Your justification is based on tests which detected an uncontrolled aircraft in the Los Angeles TCA. Why can't existing surveillance radars detect such aircraft?

ANSWER: The FAA's surveillance radars, used at TCA's do not provide height finding capabilities. They only provide range and azimuth positioning to the air traffic controller. Height information is obtained from those aircraft that are equipped with Mode C transponder equipment. (Note: Not all general aviation aircraft are equipped with Mode C transponders.)

SENATOR LAUTENBERG: In what other areas are similar tests being conducted?

ANSWER: The TPQ-37 is to be modified to allow 360 degrees coverage. Tests will then be conducted at Los Angeles (LAX), and other selected TCAs with this modified radar.

SENATOR LAUTENBERG: When during fiscal year 1990 will the funds be obligated for the TPQ-37 radar?

ANSWER: Funds for the TPQ-37 radar will be obligated in the second quarter of FY 1990.

SENATOR LAUTENBERG: When will the radar actually be installed?

ANSWER: Mid-1991.

VOICE SWITCHING AND CONTROL SYSTEM (VSCS)

SENATOR LAUTENBERG: You are requesting $184,853,000 for the VSCS, the second-largest item in the fiscal year 1990 facilities and equipment budget request. What penalties will the Government be liable for under the AAS contract if delivery of the VSCS is late?

ANSWER: Our current schedule has 3 to 6 months of slack before late VSCS delivery impacts the AAS. After that, the impact on the AAS Program of a late VSCS delivery is approximately $17 million per month (includes $11 million direct costs plus $6 million for inflation).

SENATOR LAUTENBERG: Testing requirements for VSCS before production contract award have degraded from full operational testing and evaluation to partial factory acceptance testing.

What has changed in the program that would allow you to make an award with less information than you originally stated you needed?

ANSWER: We replanned the VSCS Program in mid-1988 to better deal with the technical problems being experienced, projected cost growth, and schedule slippage in the prototype development phase. The replanned program expanded the testing in the factory to include controller evaluation of man-machine interface and operational suitability. Overall, we believe there is no increase in technical risk using the current approach, and there is substantially reduced risk of continued cost growth and schedule slippage in the program. There is some work remaining that can only be done in the acquisition phase, such as the interface with the area control computer complex of the AAS.

SENATOR LAUTENBERG: If you award a production contract based on the contractor's factory acceptance testing only, what assurance will you have that the contractor's testing results are valid?

ANSWER: The FAA will review and approve the contractor's test plans, observe the dry runs of all tests, observe the formal tests, and conduct an analysis of recorded results. We are highly confident that the contractor's testing results will be valid. In addition, we will complete our own test in the factory, including man-machine interface and operational suitability tests.

SENATOR LAUTENBERG: Do your current testing plans constitute an unacceptable risk for a system that will provide the voice communications for air traffic control?

ANSWER: The current testing provides a very high level of confidence in selecting the best system to provide voice communications for air traffic control.

SENATOR LAUTENBERG: Because VSCS has a long history of schedule delays, the possibility exists that it will not be ready in time for testing with the new controller work stations. Have you developed contingency plans to minimize the impact on both VSCS and AAS if this occurs? Please describe these plans.

ANSWER: The AAS is totally dependent on VSCS being installed and operational in the centers before the Initial Sector Suite System can be placed into operational use. The VSCS Program replan was developed to minimize the risk of further schedule slippage in this program.

ADVANCED AUTOMATION SYSTEM (AAS)

SENATOR LAUTENBERG: In July 1988, FAA awarded a $3.2 billion contract to IBM Corporation to develop and deploy the AAS. A protest by the losing contractor delayed the program, but the protest was ultimately rejected. Would you describe what impact the protest has had on program costs and schedules?

ANSWER: The protest caused a 3 1/2 month slip in the implementation schedule for the AAS Program. The proposal from IBM for an equitable adjustment in contract costs due to the protest is $45.5 million dollars.

SENATOR LAUTENBERG: Aside from delays caused by the protest, has the contract stayed on schedule and within cost estimates, and is FAA satisfied with the contractor's progress? If problems exist, what are they and what is FAA doing to minimize them?

ANSWER: No major problems have surfaced in the first

6 months of the contract and there is a slight underrun in costs to date.

SENATOR LAUTENBERG: The GSA's Board of Contract Appeals' decision to uphold FAA's contract to IBM appears to be based in part on FAA's analysis of information obtained from the risk reduction activities which were directed by this Committee. As you recall, this Committee, along with the House Appropriations Committee, directed FAA to conduct risk reduction demonstrations and to use the results in selecting the winning contractor.
Page 6 of the decision cites this Committee direction, and the body of the decision indicates the resulting risk reduction report was properly used by the source selection official in selecting IBM. Do you agree that the risk reduction activities helped to select the better contractor?

ANSWER: The risk reduction activities and the FAA summary of remaining acquisition phase risk did contribute significantly to the selection of the winning contractor.

COST EFFECTIVENESS STUDY

SENATOR LAUTENBERG: Last year GAO testafied that FAA had not analyzed a full range of consolidation alternatives, and that FAA's data indicated that not consolidating terminal facilities could increase net benefits by over $500 million. This Committee asked FAA to reanalyze its consolidation plans, and subsequently GAO issued a report recommending that the Secretary of Tranportation direct FAA to analyze a full range of terminal area alternatives. Would you describe what analysis you are doing, when final results will be available, and what preliminary conclusions you have reached, if any?

ANSWER: We have undertaken an Area Control Facility (ACF) Cost Effectiveness Study. This study is being performed under the guidance of a broadly based ACF Cost Effectiveness Study Steering Committee with membership drawn from various Federal Aviation Administration disciplines, Office of the Secretary of Transportation, Office of Management and Budget, and the military. Members of this committee met with members of your staff and with members of the House Committee staff in October 1988 to identify issues of concern that will have to be addressed. Based on these discussions and internal analysis, we have developed a schedule for accomplishment and a Statement of Work which will result in a set of establishment criteria identifying those conditions under which it will be cost effective to consolidate terminal facilities. Within the next several weeks this Statement of Work will be contractually tasked to Booz-Allen and Hamilton as a work order on a competitively awarded Indefinite Quantity Contract. The contractor will present its study design to the Steering Committee approximately 60 days after the work order has been tasked. Given Steering Committee approval, the contractor will then implement the design and we anticipate that final results will be available for staffing from the contractor in Summer 1990. We have reached no preliminary conclusions as yet.

SENATOR LAUTENBERG: GAO's report also pointed out the importance of not spending funds primarily intended for consolidation until the analysis of alternatives was completed. Has FAA identified what funds are needed to prepare to consolidate and when they will be needed?

ANSWER: Yes. The Area Facility Control (ACF) Program Office has prepared a financial plan covering the next ten years. This financial plan contains funds for program office support and some consolidation of unique areas applicable to ACF's. The plan does not include equipment acquisition costs. The first ACF program funds with significant portions directly supporting consolidation areneeded in 1991 and 1992 for parking lot expansions. These expansions are estimated to cost approximately $8 million. Other ACF program funds supporting consolidation directly, are needed in the years 1995 and beyond and are for items such as communications retermination and disposal of vacated facilities. The funds required in the out-years are still being refined; however, the estimated F&E expenditures through 1998, which are unique costs associated with ACF consolidation, are approximately $110 million. The funding for relocation of personnel post 1995 is dependent on the outcome of the cost effectiveness analysis.

SENATOR LAUTENBERG: Does your FY 1990 request include any funds that are primarily intended to support FAA's consolidation plans? If so what are they, and why are you requesting the funds this year?

ANSWER: No. The only funds requested for the Area Control Facility (ACF) program are for the program office to assist in completing required long range planning, human resource activities, and other operational air traffic control studies related to the ACF program.

JAPANESE CONTRACT

SENATOR LAUTENBERG: A recent article indicates that a $1 billion contract to build radar screens for the AAS is likely to go to a Japanese television manufacturer because no U.S. company is ready to bid on the project. Is that correct? To what extent does it concern you that American companies do not have this technology?

ANSWER: The article in question, entitled "U.S. Firms Lack Technology for $1 Billion FAA Contract," appeared in the Washington Post on March 23, 1989. It is replete with errors and misleading statements. Clarifying comments are as follows:

1. The article appears to be directed at the Advanced Automation System (AAS) contract. However, it is incorrect in its characterization of the AAS.

a. It cites "$1 Billion FAA Contract"; yet the AAS is a $3.55 billion contract.

b. It states that the contract "is likely to go to a Japanese television manufacturer"; yet the AAS contract was awarded in July 1988 to IBM with Sony as its subcontractor for displays. IBM formally signed its subcontract with Sony in March 1989.

c. It states that "only two companies--both Japanese--bid on the contract"; yet only Sony bid the contract as a subcontractor to both Hughes and IBM. No other Japanese firm or American firm could meet the AAS technical requirements.

d. It states that Zenith might be able to bid on the FAA contract (AAS) if the installation schedule were delayed about a year. As noted in item b above, the contract has already been

awarded and an intentional delay of 1 year to reopen the competition would be unthinkable.

2. The article mistakenly implies an equivalence between the AAS Display and High Definition Television (HDTV). The specialized display requirements for the AAS should not be linked with HDTV issues. The AAS display depends on a very specialized and expensive technology that is very different from that required for HDTV, and it will be years before successful HDTV companies (other than Sony) could provide a satisfactory display for AAS.

3. The article implies that U.S. industry could develop HDTV if funds were provided, and further that the HDTV companies could then meet FAA's needs. As noted above, AAS display requirements are much more difficult technically than those for HDTV.

Both Hughes and IBM surveyed U.S. and Japanese companies to see who could meet AAS display requirements and Sony was the only company they found. Both Hughes and IBM tried to cultivate other companies as potential second sources for AAS displays but no company, Japanese or U.S., would predict that they could meet AAS requirements in less than 3 years, if then. Sony has agreed to manufacture this device in San Diego, California. Our primary concern in awarding this contract and the Sony subcontract, is to meet the operational requirements in order to provide for an even safer and more efficient ATC system.

MICROWAVE LANDING SYSTEM (MLS)

SENATOR LAUTENBERG: You are requesting $30 million for the MLS program to support demonstrations of MLS capability and to permit two contractors to begin the design of CAT II/III first article system. Explain how the $19 million appropriated in fiscal year 1989 is being used.

ANSWER: The FAA is allocating the $19 million appropriated in FY 1989 for MLS system engineering ($6.2 million), and for the initiation of a 3 year (1989-1991), MLS economic and operational evaluation program. This program consists of nine individual projects that are evaluations of specific MLS economic or operational issues critical to user support for the planned conversion from the Instrument Landing System (ILS) to MLS. Additional explanation of these nine individual projects are addressed in more detail in a later question.

SENATOR LAUTENBERG: How many CAT II/III systems will be acquired with the funds appropriated to date and requested for fiscal year 1990?

ANSWER: No CAT II/III systems will be procured with FY 1989 funding. FY 1990 appropriations will be used to initiate a dual-source procurement for the design and fabrication of CAT II/III MLS first article test systems. With funding from FY 1991 the FAA will receive 26 first article test systems.

SENATOR LAUTENBERG: Please provide a brief description of each of the evaluation projects including the objective, planned schedule, funding, and accomplishment to date.

ANSWER: The individual projects in MLS Demonstration Program are as follows:

Project 1: Analysis of Available ILS Frequencies for Expansion of Precision Approaches in the U.S.--Evaluation of current projections of demand, through the year 2020, for precision approach facilities in order to determine if the frequency spectrum allocated to ILS, and/or MLS is adequate to meet that demand.

Project 2: Evaluation of Wide Body Curved or Segmented Approaches and Other Advanced Technologies for Precision Approach--Evaluation of MLS RNAV and FMS/ILS curved and segmented approach procedures in a wide body aircraft simulator. This project will also assess new aviation technology such as Forward Looking Infrared Radar (FLIR), Millimeter Radar, and Synthetic Vision/Heads Up Display for their potential use as precision approach systems or aids.

Project 3: Evaluation of Advanced Procedures in Multi-Airport Environments--Simulations of simultaneous ATC operations to and from all airports in a complex multi-airport terminal area such as New York, NY. The product of this simulation will be a comprehensive and well documented assessment of the effects on capacity of advanced procedures such as curved and segmented approaches.

Project 4: General Aviation/Commuter Capacity Enhancement--This is a project to demonstrate MLS capacity enhancement capabilities through the actual deployment of MLS's to selected commuter and general aviation runways at airports that suffer capacity impairments in instrument meteorological conditions (IMC).
This project will quantify capacity benefits of MLS at commuter and general aviation runways that stem from optimized air and ground circulation patterns and aircraft segregation.

Project 5: Comparison of MLS to ILS Performance--This project is an assessment of the comparative performance of MLS versus ILS and includes both flight and simulation data collection. Some of the areas to be addressed include:
(1) accuracy, (2) low altitude coverage, (3) reduction of overflight effects, (4) reduced critical areas, (5) immunity to weather effects, and (6) flyability.

Project 6: Assessment of MLS Avionics Installation Costs--This study will define MLS avionics installation requirements for New Aircraft and Retrofit in Air Carrier, Commuter, and General Aviation Aircraft. The focus of this project is a comprehensive market survey and analysis of installation costs for MLS avionics systems by aircraft manufacturers and retrofitters.

Project 7: Assessment of Reduced MLS Minima--This project is to collect and analyze data that will support reduced minima when using MLS-DME/P and assess the cost of equipping aircraft for this capability.

Project 8: Development of DME/P Interrogators--Currently there are no airborne interrogators available that are designed to take advantage of the improved accuracy that DME/P will provide. The purpose of this project is to ensure that the avionics necessary to carry out the MLD demonstration projects are available.

Project 9: Category II/III Flight Demonstration and Procurement--This project will integrate MLS-DME/P avionics with flight director and autopilot systems to provide Category II capability in a turboprop and a separate Category II/III capability in large corporate or air carrier jet.

These projects will take place over the next 3 years. All projects have been initiated for example; the analysis of available ILS frequencies for expansion of precision approaches is being conducted by MIT for the FAA through the Transportation System Center. The evaluation of wide body curved or segmented approaches and other advanced technologies for precision approach is being accomplished through the FAA Technical Center with NASA, McDonnel-Douglas, and the Netherlands National Laboratories.

Funding for these projects are as follows:

PROJECTS	FY 1989	FY 1990	FY 1991
1. Analysis of Available ILS Frequencies for Expansion of Precision Approaches in U.S.	1.0	0	0
2. Evaluation of Wide Body Curved or Segmented Approaches and Other Advanced Technologies for Precision Approach	1.9	3.2	.9
3. Evaluation of Advanced Procedures in Multi-Airport Environments	1.5	1.2	.5
4. General Aviation/Commuter Capacity Enhancement	4.1	3.3	3.8
5. Comparison of MLS to ILS Performance	.1	.4	0
6. Assessment of MLS Avionics Installation Costs	1.0	0	0
7. Assessment of Reduced MLS Minima	.3	.1	0
8. Development of DME/P Interrogators	1.8	0	0
9. Category II/III Flight Demonstration and Procurement	.5	2.5	2.4

SENATOR LAUTENBERG: Do any of the evaluation projects call for testing of MLS systems in an operational environment?

ANSWER: Yes. The purpose of the FAA's MLS Demonstration Program is to conduct studies and operational demonstrations that will, when completed, provide the FAA, airlines and other users information needed to establish a basis for a mutually supportable decision on future U.S. precision approach needs.

SENATOR LAUTENBERG: Why are you proceeding with additional design and production contracts before you have fully demonstrated the benefits of MLS? How many systems would FAA procure under such contracts?

ANSWER: There are no remaining technical questions about MLS.

MLS technology has been proven to be superior to current ILS technology. The FAA is evaluatirg MLS applications to define the economic and operational benefits of this technology. The FAA will procure 26 first article test systems and upon successful demonstration of the economic and operational benefits will seek approval to procure enough systems to meet the NAS Plan precision approach system requirements.

SENATOR LAUTENBERG: The contractor for the first 178 MLS systems, Hazeltine Corporation, has fallen well behind schedule and delivered only the first 4 systems. What is the status of contract negotiations? Will Hazeltine be able to deliver all 178 systems within the current contract price of $79 million, or will FAA have to increase its compensation?

ANSWER: Hazeltine Corporation was purchased by Emerson Electric Corporation in early 1988. Hazeltine claims that they are losing money on the FAA contract and have filed two claims with the FAA. The first claim, for $37 million, was on the turnkey portion of the contract. This claim has been denied for lack of documentation. The second claim on the production portion of the contract is for $27 million and is being evaluated by the FAA. The FAA has suspended all progress payments to Hazeltine.

The FAA is pursuing resolution of the Hazeltine Contract on two levels, through contractual remedies and negotiations. The FAA has imposed a delivery schedule on the contractor and is taking those actions required under contract law necessary to force performance or lead to default. The contractor's claims are also being reviewed and the FAA is trying to negotiate a solution to the contractual impasse to restart system deliveries.

Due to the complexity and the number of significant variables in the program, variables such as the ultimate outcome of the Hazeltine contract, our confidence level that the program will be within + or - 10 percent of current program cost and schedule estimates is approximately 80 percent.

SENATOR LAUTENBERG: When will deliveries and installations of the 178 units be completed?

ANSWER: Hazeltine Corporation is over 3 years behind schedule on deliveries under their contract with the FAA for Category I MLS's. Because of the problems the FAA has encountered with the Hazeltine contract, its difficult to project with any certainty the delivery or commissioning date for these systems. However, in November 1988 the FAA unilaterally imposed a delivery schedule upon Hazeltine.

This schedule calls for deliveries of systems to resume in June of 1989. Under the schedule a total of 24 systems must be delivered in 1989, 84 systems in 1990, and 68 systems in 1991. Hazeltine has already delivered 2 of the 178 systems to Lebanon, NH., and the FAA Technical Center in Atlantic City, NJ.

MODE S

SENATOR LAUTENBERG: You are requesting $27 million for the Mode S Program, which would bring total funding to $33,163,000 since fiscal year 1982 for 137 systems and would leave $133,937,000 in future requirements for 60 more systems. Your request shows that Mode S would be installed at 197 locations, but GAO informs the Committee that you have decided to require an additional 259 systems. Is the fiscal year 1990 budget request, which shows that

197 Mode S systems will be installed accurate, or has the number increased?

ANSWER: In addition to the existing contract for 137 sensors, and the planned second buy of 60 sensors, the requirement for an additional 199 Mode S sensors to replace aging beacon equipment was approved on October 6, 1988.

SENATOR LAUTENBERG: If it has increased, what is the revised estimated future funding requirement?

ANSWER: The current program cost estimate for the second procurement (259 systems) is $1,227 million.

SENATOR LAUTENBERG: What is the nature of the "development problems associated with Mode S"? Why did they occur?

ANSWER: The most serious developmental problems stem from the size and complexity of the software effort. For example, the contractor underestimated the number of lines of code in the job, and the complexity of the integration tasks.

SENATOR LAUTENBERG: What type of contract was awarded to the development/production contractors?

ANSWER: The contract is a fixed-price incentive type, with a few fixed price items.

SENATOR LAUTENBERG: Did the contractor have to absorb cost overruns, or were all costs passed on to the Government?

ANSWER: The contractor has expended currently about half of the contract price during the development effort, and estimates that they will expend the remainder of the funds during the production portion of the program. It is expected that they will complete the contract effort within the contract price.

CONTRACT CEILING PRICE

SENATOR LAUTENBERG: Last year, you also said you expected the contract to reach the ceiling price of $271 million, but that the ceiling price would not be exceeded. Has the ceiling price changed, and if so, by how much?

ANSWER: The last change to the ceiling price was in Modification 23 to the contract, which added $3,990,000 to the contract total and raised the ceiling price to $263,177,090.

SENATOR LAUTENBERG: Does the contractor agree that the price will not exceed the ceiling?

ANSWER: It is expected that the contractor will complete the contract effort within the contract price.

SENATOR LAUTENBERG: This year, you are asking for $27 million to fund various Mode S-related activities such as spare parts and a dedicated repair service. Do these items represent newly identified requirements which are increasing Mode S costs?

ANSWER: The contract was awarded originally with these items identified but unpriced, because quantities were uncertain and prices would vary depending on the design. Quantities and prices are now known and form the basis for the FY 1990 request.

SENATOR LAUTENBERG: Last year, you testified that, although the Mode S system had encountered development problems which increased costs and delayed scheduled deployments, FAA believed the contract

was, at that time, "doing an incredible job and we (FAA) will get a good product." Last year, delivery to the first operational site was scheduled for April 1989. Was the system delivered in April, and if not, what is the current scheduled delivery date?

ANSWER: Last year we stated that the deliveries would occur between April 1989 and November 1992. System deliveries are now scheduled between April 1990 and July 1994.

SENATOR LAUTENBERG: Do you have any data that would indicate the system as currently designed may not meet FAA's performance requirements for such things as computer capacity utilization and response times? If so, do you still believe FAA will get a good product?

ANSWER: We are satisfied that the Mode S will meet the performance requirements of the original specification. The figures for processor utilization are now within specification requirements through software optimization. The response time problem is being addressed currently.

SENATOR LAUTENBERG: FAA justified the investment in Mode S based largely on the system's ability to perform the data link function. In fact, billions of dollars in NAS Plan benefits rely on successful implementation of the Mode S data link. What is your current assessment of the system's ability to perform data link functions, and are test results available to support your assessment?

ANSWER: Based on demonstrations conducted at the FAA Technical Center, we are confident of the systems capability to perform data link functions. The final test reports are being prepared.

SENATOR LAUTENBERG: When will the first systems be installed and operational?

ANSWER: The Data Link equipment and software procurement is timed so that data link capability will be available with the first operational Mode S ground system.

SENATOR LAUTENBERG: When do you expect the air carriers to begin equipping their fleets with Mode S transponders?

ANSWER: We expect the conversion process to begin imminently. The Traffic Alert and Collision Avoidance System (TCAS) equipage rule requires that air carriers with more than 30 seats be equipped with Mode S compatible equipment by January 1, 1992. To meet this deadline, 3,224 Mode S addresses have been assigned to aircraft owners in the United States.

SENATOR LAUTENBERG: Please update the schedule shown on pages 966 and 967 of last year's hearing record and explain the reasons for any variances between this year's estimate and last year's.

ANSWER: On March 17, 1989, Contract Modification 28 was signed, which adjusted the delivery dates for the Mode S sensors. The additional delays were caused by continued difficulty with the integration tasks and the size and complexity of the software effort.

Mode S	Original Contract Delivery	Last Year's Delivery	Current Contract Delivery	Revised Contract Delivery
FAA Tech Center	4/4/87	1/4/89	4/30/90	1/30/90

No. 4 (1st Oper System)	5/4/88	4/4/89	10/31/90	3/31/91
No. 5	3/4/89	2/4/90	5/31/91	9/30/91
No. 137	1/4/92	12/4/92	3/31/94	7/31/94

PARALLEL AND CONVERGING RUNWAY MONITOR (PCRM) SYSTEMS

SENATOR LAUTENBERG: You are requesting $13.5 million for acquisition of a prototype sensor that will allow controllers to monitor approaches to closely spaced parallel and converging runways during instrument conditions. Your plan is to install 9 additional such sensors at an estimated cost of $38.6 million. Why will the first sensor cost $13.5 million, and each of the additional 9 cost a little more than $4 million?

ANSWER: The cost of the first sensor includes the nonrecurring development and testing costs.

SENATOR LAUTENBERG: If, as you state, there are at least 75 airport that would benefit substantially if such monitors were installed, why are you planning on installing only 9 more.

ANSWER: The 10 sites currently planned have existing parallel runways and would show an immediate benefit from independent IFR approaches. The remaining candidate sites have converging runways, or room for a new parallel runway, and would show lesser (or less immediate) benefit from the new approaches. After completion of the current demonstration program, benefits of installing PRCM systems at the remaining candidate sites will be re-examined.

FUEL STORAGE TANK REPLACEMENT

SENATOR LAUTENBERG: You are requesting $10.7 million for the replacement and monitoring of underground fuel storage tanks. Last year $25 million was appropriated. You also estimate future funding requirements of $161.6 million. Your justification states that:

-- The replacements are needed to comply with federal environmental laws that have been on the books since 1984, and also to comply with state laws.

-- The fuel tanks now underground have a life expectancy of 15 years, but the majority have been in place for 20 to 25 years.

Based on your justification, why are you taking such a slow approach to compliance with environmental laws? Provide the Committee a timetable for tank replacement and compliance with both federal and state laws.

ANSWER: We are moving as quickly as possible considering available resources. We estimated a future cost of $161.6 million for the underground fuel storage tank program. We have requested only portions of these funds each year consistent with resources and other aviation safety priorities. It required approximately 2 years to develop standard designs and implementation strategies.

We test our fuel tanks to determine their integrity and take corrective actions as required. We developed and issued underground fuel tanks specifications and drawings for new and replacement fuel tanks at facilities which utilize diesel engine generators for standby power.

There are approximately 3,150 fuel tanks in the FAA field inventory. We replaced 156 fuel storage tanks last year and plan to remove and/or replace 772 and 841 tanks in 1989 and 1990 respectively. We are now planning the 1991 and 1992 efforts.

We remove and/or replace fuel tanks in priority order. Leaking tanks are our top priority followed by those which must be removed and/or replaced to meet state or area requirements. Upon completion of this program, all FAA underground storage tanks will be a double wall type with leak detectors. Each will meet or exceed environmental requirements.

The FAA is using and investigating other sources of standby power to meet existing and anticipated environmental regulations and reduce our number of underground fuel storage tanks. These sources include batteries, propane engine generators, and photovoltaics. We feel our efforts exceed the environmental regulations of many states and municipalities.

SYSTEMS SUPPORT

FIELD MAINTENANCE EMPLOYMENT

SENATOR LAUTENBERG: What is your field maintenance employment levels end of fiscal year 1988, now, estimated at the end of fiscal year 1989, and projected for end of fiscal year 1990?

ANSWER: The following represents our field maintenance employment levels.

END OF YEAR 1988	AS OF 4/30/89	PROJECTED END OF YEAR 1989	PROJECTED END OF YEAR 1990
8,646	8,501	8,716	8,900

FACILITY COMMISSIONINGS

SENATOR LAUTENBERG: Among the 93 facilities you planned to commission in 1989 were 8 automated flight service stations, 65 microwave landing systems and 3 airport surveillance radars. Would you indicate how many of these have actually been commissioned to date?

ANSWER: Of the facilities listed above, the MLS at Lebanon, New Hampshire and two AFSSs have been commissioned. The three airport surveillance radar equipment will be delivered this summer with commissionings expected in late FY 1989 or early 1990. In addition, so far during fiscal year 1989, we have commissioned a total of 339 other major and non-major facilities.

NEW FACILITIES

SENATOR LAUTENBERG: Would you provide a listing of the new facilities planned for commissioning during fiscal year 1990?

ANSWER: The following is a listing of new facilities planned for commissioning during FY 1990:

Air route surveillance radar 1
Air traffic control beacon interrogator 1
Air traffic control radar beacon 2

Airport surface detection equipment 7
Airport surveillance radar 1
Automated radar terminal system 3
Radio communications link repeater 138
Radio communications link terminal 52
Terminal doppler weather radar 2
Automated flight service station 11
Automated weather observing system 105
Next generation weather radar 4
Direction finder equipment 20
Remote center air/ground communications facility 6
Remote communications outlet 6
Approach light system 29
Distance measuring equipment 6
Instrument landing system 2
Lead-in light facility 1
Microwave landing system 20
Runway end identification light 27
Runway visual range 44
VHF omnidirectional range 1
Visual approach slope indicator 11

TOTAL 500

We do anticipate that some variations will be experienced in this area; e.g., though not currently scheduled, we fully expect several more new ILSs will be commissioned by the end of FY 1990.

SYSTEM MAINTENANCE

SENATOR LAUTENBERG: We have consistently been told that NAS Plan equipment would result in reduced maintenance. There are no in-house reductions and increases in contract maintenance. Why?

ANSWER: Our FY-1990 request indicates no staffing reduction and an increase in contract maintenance because NAS Plan equipment delivery schedules have been drawn out thereby not allowing us to achieve reductions as rapidly as we had originally projected. Increased levels of contract maintenance are required to cover the first few years of maintenance during which time FAA employees are being trained and certified to perform the maintenance in-house. Also, the increased attrition rate in our maintenance workforce due to retirements dictates that we maintain an active hiring program for the next few years. We cannot permit attrition to get ahead of the productivity gains we will achieve with the deployment of the NAS equipment.

SYSTEMS SUPPORT

SENATOR LAUTENBERG: What is the total amount spent for all contract maintenance? List by facility, piece of equipment, etc., the major maintenance contracts.

ANSWER: The following table represents the cost ($ in thousands) of major maintenance contracts within the Systems Maintenance Activity for FY 1989 and FY 1990:

SYSTEM	FY 1989	NET INCREASE	ESTIMATED FY 1990
PILOT	$ 0	$5,000	$5,000
MODEL 1 FSAS	1,296	0	1,296

ICSS	11,890	460	12,350
HOST	3,702	156	3,858
HOST SOFTWARE MAINT	0	2,000	2,000
AWIS	236	22	258
TMU	200	364	564
OFDPS	0	160	160
CAEG	0	1,500	1,500
Totals	$17,324	$9,662	$26,986

FUTURE REQUIREMENTS

SENATOR LAUTENBERG: The Facilities and Equipment budget contains a large number of items for which future requirements are not shown. The request is footnoted to indicate that future requirements will be based on activity levels and local situations to be validated on a year-to-year basis.

There is no discernible reason why some reasonable estimate of such requirements cannot be made, particularly for replacement of older equipments.

Explain why you are not able to provide such estimates in light of all of the other estimated future requirements shown on the budget request.

ANSWER: Up to and including our FY 1989 budget request, our future requirements were projected only through FY 1982 which corresponded to the end of the original NAS Plan period. Beginning in our FY 1990 budget request we modified the format to show "future requirements" rather than stopping with FY 1992. This was to provide additional information for major programs that extended a year or several years beyond FY 1992. The programs that are footnoted and do not show specific future dollar requirements are programs that will continue almost indefinitely. It would be meaningless to show a dollar figure for the next 10, 20 or 30 years for such programs as ATCT modernization, establish REIL or airport cable loop. Most of these programs will continue, most at about the same dollar level, for years to come.

SENATOR LAUTENBERG: Why isn't there a plan for replacements of cable loop systems, for example, based on knowledge of the systems condition and age?

ANSWER: As stated above, there is a continuing type program that will be budgeted for years to come. It was never intended to show future requirements for this type of program.

INTERIM SUPPORT PLAN

SENATOR LAUTENBERG: You are requesting $110 million for the interim support plan. Last year, you were appropriated over $113 million. Was a formal study completed to identify system deficiencies, including specific locations? Provide this study to the Committee. If not, why not?

ANSWER: The Interim Support Plan (ISP) was developed by a group of FAA regional and headquarters representatives. The group was convened to make recommendations on those projects that needed to be undertaken in the short term to bridge the gap until major NAS Plan projects are fully implemented. An ISP program synopsis including specific locations is attached.

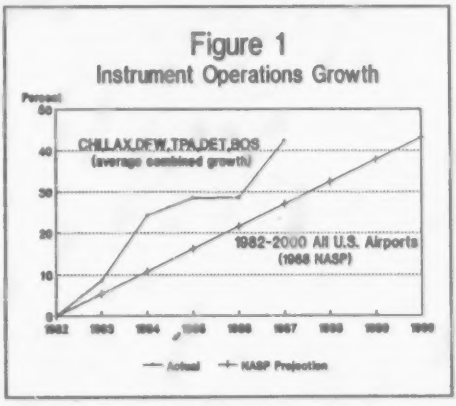
INTERIM SUPPORT PLAN

PROGRAM SYNOPSIS

A. BACKGROUND. The National Airspace System (NAS) Plan calls for an evolutionary upgrade and expansion of the Air Traffic Control (ATC) system and supporting activities, new and improved automation capabilities, and facility consolidations. Completion of the NAS Plan is dependent on the successful integration and implementation of many independently procured components/systems/subsystems. The acquisitions contained in the Interim Support Plan (ISP) will provide the necessary equipment/services which are required to sustain certain ATC needs during the transition period prior to completion of the current NAS Plan projects.

When the NAS Plan was first published in December 1981, the Advanced Automation System (AAS) was to replace all of the terminal ATC equipment. The 1983 NAS Plan first introduced the concept of the Area Control Facility (ACF) which would consolidate current terminal ATC functions. Since that time, alternative approaches to consolidation have been considered. Therefore, the ability of the current ARTS equipment to maintain adequate processing capacity until AAS is fully implemented must be ensured.

With the deregulation of the airline industry and the widespread use of hubbing, aviation has undergone tremendous growth in terms of the number of flights receiving ATC services and the number of passengers enplaned [see Figure 1.] This growth, changes in airspace regulations and the slippage in some major NAS Plan programs, have resulted in the FAA's: 1) inability to provide services to all aircraft during peak traffic periods at the highest density terminal automation facilities; 2) continued dependence on aging equipment within the NAS which are becoming increasingly difficult to maintain and supply support; and 3) inability to provide additional equipment to accommodate increased air traffic. Inevitably, current methods of managing the air traffic control system have resulted in air traffic delays, increased technician and air traffic controller workloads, and a general decrease in system efficiency.



A working group was convened in 1987 by the (former) Systems Engineering Service and consisted of representatives from the Air Traffic Requirements Service, the Program Engineering and Maintenance Service, regional airway facilities and air traffic divisions, and others. The work performed by this group formed the basis for development of the FAA program to address system capacity and survivability problems. The group identified supplemental equipment needed to sustain the NAS until the completion of the full NAS Plan modernization.

The Interim Support Plan (ISP) is being implemented to ensure continuity of the NAS Plan. It complements the NAS Plan and is intended to provide short range assistance in areas that were unanticipated and/or unforecasted at the time the long range NAS Plan was developed. The ISP is intended to maintain the air traffic system until the Terminal Advanced Automation System (TAAS) is implemented under the NAS Plan. ISP will utilize existing contracts, sole source and/or off the shelf procurements to the maximum possible extent.

B. PROBLEM AREAS. Seven major program areas have been identified as requiring enhancements and/or additional equipment to ensure the continued safe and efficient operation of the ATC system as we evolve through the

implementation of NAS Plan programs. These include ARTS III/IIIA/EARTS and ARTS II/IIA, long-range radar, landing systems, airport weather sensors, terminal radar facilities and Integrated Communications Switching System(ICSS) bypass equipment.

1. **ARTS III/IIIA/EARTS**--Problems identified with the ARTS III/IIIA Systems are in the areas of system capacity; reliability, maintainability, and availability; and lack of equipment to handle additional growth and demand.

   a. **System capacity**--Many ARTS III/IIIA facilities are reaching, or have reached, their design capacity levels. Facilities such as Los Angeles, Chicago, Atlanta, etc., are experiencing peak traffic loads which exceed or soon will exceed, the ARTS IIIA design capacity to provide 1) target tracking of all required traffic, 2) added display capacity for expansion and 3) sufficient processing capability to prevent delayed response times to data inputs, and to support site specific operational requirements. The causes of the ARTS III/IIIA capacity problem are current ARTS III/IIIA system limitations in both hardware and software. These limitations produce problems such as lost data, slow response times, untracked targets, and display flicker, which seriously impair air traffic operation at high activity facilities.

   b. **Reliability/Maintainability/Availability**--By today's standards, the ARTS III/IIIA/EARTS are aging systems using outdated technology. Many unique components and subassemblies are currently in short supply or unavailable (i.e.:- disk drives, keyboards and trackballs, and subassemblies unique to the EARTS system.) Therefore, maintenance of this equipment is difficult and costly and is impacting maintenance workload as well as system availability.

   c. **Lack of additional displays for growth**--ARTS III locations have not received any additional displays since the mid-1970s. As traffic grew and positive controlled airspace increased, operational positions were created by utilizing training displays. Continued traffic growth and training requirements cannot be accommodated within current resources.

2. **ARTS II**--Problems identified with the ARTS II system are also in the areas of system capacity; reliability, maintainability and availability; and lack of equipment to handle additional growth and demand.

   a. **System Capacity**--ARTS II systems were planned for low to medium activity terminal radar facilities. Many of these sites are now level IV facilities and some, such as Pensacola, are close to qualifying for Level V. As a result, the ARTS II system capacity of 1 sensor, 11 displays and 256 files (including flight plans) is incapable of meeting existing operational requirements at some locations. Requirements which exceed ARTS II capacity are flight plan storage, display capacity, and multi-sensor capability. One facility, Pensacola, is facing requirements which exceed the ARTS II design capacity in all these areas. As growth in air traffic continues, more facilities will have operational needs which exceed the ARTS II system design capacity.

   b. **Reliability, Maintainability, Availability**--ARTS II system reliability, maintainability, and availability has become more critical as air traffic levels at many ARTS II facilities approach those of ARTS III. Two areas which have

an adverse effect on ARTS II system availability are its susceptibility to power drops or surges and its magnetic tape subsystem which has no backup. Records indicate that 90 percent of all system failures and interruptions are power related. In addition, the magnetic tape subsystem which is used for program loading/recovery and data extraction contains a critical component, the drive motor, which is no longer manufactured and is in short supply.

c. Lack of additional displays for growth--ARTS II facilities have not received any additional displays with the exception of those undergoing TRACAB conversions. As traffic grows and more Terminal Control Areas/Airport Radar Service Areas are implemented, additional ARTS II radar control positions will be required. Air traffic growth and the introduction of training software generate the need for ARTS II training displays. These requirements cannot be accommodated within current resources.

3. Long-Range Radar Upgrades--The ARSR-1/2 and FPS-20 family of long-range radars are vacuum tube designs and have been in service for over 25 years. These systems require intensive maintenance and are rapidly becoming unsupportable as a result of industry-wide transition from vacuum tube to solid state technology. These facilities are maintained by technicians at or rapidly approaching retirement age. It is becoming increasing difficult and costly to train entry level technicians to staff these facilities since they generally have little or no experience with outdated vacuum tube technology.

4. Establish ASR-9s--Additional terminal radars and their attendant automated radar data processing equipment and facilities will be required between now and the implementation of the terminal radar replacement program. These are required to satisfy new qualifiers.

5. Instrument Landing Systems--Problems associated with FAA landing systems are in the areas of supply support of AN/GRN-27s and in the operation of its glide slope facilities. The manufacturer of the AN/GRN-27 equipment no longer supports it. Hence, its maintenance is extremely difficult and costly. The proliferation of obstructions as a result of increased community development in and around airports has caused significant anomalies affecting the operation of ILS glide slope reliability. This can result in the failure of facilities to pass flight inspection.

6. Airport Weather Sensors--Many of the FAA's airport weather sensing equipment (cloud height indicators and remote readout hygrothermometers) in air traffic control tower facilities are experiencing an increasing rate of failure due to the age of this equipment. In addition, field facilities are encountering supply support problems associated with this obsolete hardware. Maintenance of this equipment is no longer cost effective and the FAA's ability to provide reliable weather information is being jeopardized. AWOS equipment for these facilities will not be available until the 1993 to 1995 time period.

7. ICSS Backup Bypass--The current ICSS system does not provide the air traffic controller with air/ground communications should the ICSS fail. The portable, tuneable transceiver which is currently used during a catastrophic failure does not satisfy air traffic requirements. During an ICSS failure, other means of providing a limited number of independent backup frequencies are required for controllers to maintain an orderly flow of air traffic.

C. SOLUTION. The projects in the ISP address the aforementioned problem areas. ISP recognizes that the NAS Plan is currently in place to address these problems in the long term. However, interim solutions are required which must be consistent with the NAS Plan. They will require no significant

development effort and can be implemented with a high degree of confidence in a relatively short time period to maximize payoff. The projects in the ISP are:

1. ARTS IIIA/EARTS

   a. Solid State Memory--Replace core memory at each ARTS IIIA/EARTS facility with 256K words of solid state memory. By replacing the existing core memory with solid state memory, a benefit of approximately 20 percent increase in processing efficiency at single sensor sites and 30 percent at dual sensor sites can be attained. This will permit the central track store tables to be increased by approximately 20 percent, thus increasing ARTS IIIA aircraft tracking capacity. Since core memory is no longer manufactured, maintenance of the present ARTS IIIA core memory modules is expensive. The replacement of core memory with solid state memory will facilitate maintenance and supply support of the existing ARTS IIIA equipment. [For site listing see Appendix, page A-2.]

   b. Keyboards, Trackballs/EARTS Provisioning/ARTS IIIA Software Support--The provisioning of ARTS related supplies and services will allow the ARTS IIIA/EARTS equipment to remain operational until the AAS program is fully implemented. A total of 126 keyboards/trackballs for ARTS IIIA facilities, provisioning for various unique EARTS subassemblies, and software support to accomodate hardware requirements will be procured. This will also improve system performance and result in more efficient maintenance of ARTS IIIA/EARTS equipment. [All sites]

   c. Establishment of additional ARTS IIIA Radar Positions--Establishment of an additional 100 ARTS IIIA radar positions utilizing a combination of Full Digital ARTS Displays (FDADs) and ARTS III Data Entry and Display Subsystems (DEDS) as well as ancillary equipment (communications, clocks, etc.), will accommodate continued air traffic growth and eliminate the output display overload problem known as "flicker" now encountered at some ARTS IIIA facilities. This will be accomplished through the procurement of 100 FDADs for a limited number of major ARTS IIIA facilities. The displaced DEDS from these facilities will be used for expansion positions, due to training and projected growth, at less busy ARTS IIIA locations. [For site listings see Appendix, page A-3.]

   d. Refurbish ARTS IIIA/EARTS Disk Drive Subsystem--Sustaining the ARTS IIIA/EARTS disk drive subsystem until its replacement by AAS involves the refurbishment of 154 disk drives, the upgrading of 86 disk control units and the procurement of an additional 10 disk exerciser diagnostic units. This is necessary because the existing disk drive subsystems at ARTS IIIA/EARTS facilities are failing at an increasing rate. [All sites]

2. ARTS II

   a. Separate Flight Plan File--The ARTS IIA software will be modified to create a separate file for flight plans. In the present ARTS IIA design, all aircraft data, including tracks, unassociated targets, and flight plans, are contained in a single table in memory which accommodates a total of 256 files, including flight plans. Forecasts suggest that the size of this table, which has a limit of 93 flight plans, is insufficient for use as a file for all of

the data. A separate file for flight plans would also make available additional files for unassociated targets to meet future growth requirements. [All sites]

b. Replace ARTS II Magnetic Tape Subsystem--Procure disk drive subsystems as replacements for tape drive subsystems at all ARTS II locations. The existing tape drive has a high failure rate and contains a critical component, a drive motor which is no longer manufactured. This will improve ARTS II reliability, maintainability, and availability. [All sites]

c. Multi-sensor/Multi-processor ARTS IIA--The procurement of dual sensor, dual processor ARTS IIA systems is proposed for the largest ARTS IIA locations and those ARTS IIA locations requiring dual radar coverage. Forecast traffic data indicates that these facilities have reached, or will soon reach, system capacity for either displays or sensors. The addition of a second processor, in addition to providing expanded display capacity and/or sensor capacity, will also provide a backup level of operation, in the event of a processor failure. [Pensacola]

d. Establishment of Additional ARTS IIA Radar Positions--Establishment of an additional 158 ARTS IIA radar positions utilizing ARTS IIA Radar Alpha/Numeric Display Subsystems (RADS) and ancillary equipment (communications, clocks, etc.), will be required. Of that total, 30 will be for operational positions at ARTS IIA facilities to accommodate continued air traffic growth. The remainder will be used for ARTS IIA training to take advantage of the off line training capability of the ARTS IIA system. This is preferable to training controllers on operational displays that are vital for air traffic operation. [For site listing see Appendix, page A-4.]

e. Uninterruptible Power System (UPS) for ARTS IIA--Procure UPS for high activity ARTS IIA locations. This action is necessary to assure the safe and efficient flow of air traffic at high activity ARTS IIA facilities which show a high incidence of outages due to electrical power fluctuations and interruptions. [For site listing see Appendix, page A-7.]

3. Long-Range Radar Upgrades--Procure 76 solid state transmitter modification kits and 12 solid state receivers/digital moving target indicator modification kits to replace the remainder of the vacuum tube circuitry in the long range radar systems (ASRS-1/2 and FPS-20 series radars). This will improve the performance and reliability of these radars and allow these systems to be maintained until the long-range radar replacement program is fully implemented. [For site listing see Appendix, page A-8.]

4. Landing Systems--Procure 10 GRN-27 replacements for the most critical sites. The replaced GRN-27s will be used as supply support for the remaining GRN-27 systems in FAA's inventory. Also, procure 55 "capture effect" glide slope conversion kits for converting existing glide slope facilities affected by obstructions to "capture effect" facilities to improve ILS reliability and meet clearance requirements for category II equipment. [For site listing see Appendix, page A-9.]

5. ICSS Bypass--ICSS bypass equipment, FA-9334 or equal, will be procured for 80 air traffic control facilities. This equipment will make it possible to circumvent the ICSS and continue communications on a limited number of frequencies. This is required to ensure communications with pilots at facilities which actively control aircraft. [For site listing see Appendix, page A-10.]

6. **Airport Weather Sensors**--Procure 80 remote readout hygrothermometers and 109 cloud height indicators as replacements for existing equipment at FAA towered facilities. This will ensure the continuation of reliable aviation weather services and provide interim capabilities prior to implementation of Automated Weather Observing Systems for towered facilities. [For site listing see Appendix, page A-11.]

7. **Establish ASR-9s**--Establish 11 terminal radar facilities equipped with ASR-9, Mode S, ICSS, DBRITE, FDIO, ARTS IIA or ARTS IIIA and video mapper equipment. These facilities are required for the expansion of the NAS (new qualifiers). [For site listing see Appendix, page A-14.]

D. **FUNDING REQUIREMENTS:** (in millions of dollars).

FY 1989	FY 1990	FY 1991	Total
113.2	110.0	294.0	517.2

Funding Profile:

Project	FY 1989	FY 1990	FY 1991	TOTAL
ARTS III Solid State Memory	28.4	16.1	3.0	47.5
ARTS III Keyboards/Trackballs/ Software/Ancillary Equipment	5.2	1.0	0.1	6.3
ARTS III Radar Positions	38.0	25.6	19.8	83.4
ARTS III Disk Drive Refurbish	7.9	0.0	0.0	7.9
ARTS II Tape Drive Replace	0.0	3.1	2.3	5.4
ARTS II Separate Flight Plan	0.3	0.0	0.0	0.3
ARTS II Multi-sensor Processor	4.8	0.0	0.0	4.8
ARTS II Radar Positions	0.0	23.5	23.0	46.5
ARTS II UPS	0.0	0.0	7.5	7.5
Long Range Radar Upgrades	7.3	0.0	36.8	44.1
ILS (GRN-27) Replace	14.0	0.0	0.0	14.0
ILS Glide Slope Antennas	7.3	0.0	0.0	7.3
ICSS Backup	0.0	13.0	4.0	17.0
Airport Weather Sensors	0.0	3.2	1.9	5.1
ASR-9 Establish	0.0	24.5	195.6	220.1
TOTALS	113.2	110.0	294.0	517.2

E. **CONCLUSIONS.** Based on the analysis presented by the working group, the urgent needs, and the practical, immediate solutions, the Associate Administrator for Development and Logistics and for Air Traffic approved the ISP on August 28, 1987.

On December 4, 1987, the Assistant Secretary for Budget and Programs was briefed on ISP and subsequently a budget line item was included in the FY 1989 F&E budget submission.

Most recently, initial program approval was formally received from the OST on February 28, 1989 and the Acting Administrator, Robert E Whittington, approved the TPL Decision Memorandum on March 9, 1989.

APPENDIX

ISP PROJECT SITE LISTINGS

FOR PLANNING PURPOSES ONLY

ARTS IIIA
Solid State Memory
Site Listing

Chicago, IL
Dallas, TX
Los Angeles, CA
Atlanta, GA
Denver, CO
Wash Dulles, DC
Wash National, DC
Boston, MA
Oakland, CA
Houston, TX
Depot Spares, OK
Detroit, MI
Tampa, FL
Miami, FL
Seattle, WA
Ontario, CA
Providence, RI
St. Louis, MO
Pittsburgh, PA
Phoenix, AZ
New Orleans, LA
Indianapolis, IN
Memphis, TN
Columbus, OH
San Antonio, TX
Buffalo, NY
Cincinnati, OH
Milwaukee, WI
Dayton, OH
Fort Rucker, AL
Portland, OR
Nashville, TN
Charlotte, NC
Louisville, KY
Tuscon, AZ
Birmingham, AL
Salt Lake City, UT
Omaha, NE
Tulsa, OK
Oklahoma City, OK
Rochester, NY
Albuquerque, NM
Burbank, CA
Raleigh/Durham, NC
Des Moines, IA
Syracuse, NY
Albany, NY
El Paso, TX
Shreveport, LA
Hartford, CT
Orlando, FL
FAA Academy, OK
FAA Tech. Ctr., NJ
Nellis AFB, NV
Sacramento, CA
Minneapolis, MN
San Juan, PR
Santa Ana, CA
Cleveland, OH
Baltimore, MD
Las Vegas, NV
San Diego, CA
Jacksonville, FL
Kansas City, MO
Honolulu, HI (HNL)
Norfolk, VA
FAATC TATF
Anchorage, AK
Honolulu, HI (ZHN)
Relocation, Dual
Relocation, Single
Depot, Test Bed
Philadelphia, PA
INCO Spares

ARTS IIIA
FDAD Placement
Site Listing

Terminal Los Angeles Basin Service	24
Dallas Ft. Worth Metroplex	20
Denver TRACON	10
Chicago TRACON	26
Tampa TRACON	20
TOTAL	100

ARTS II
Establish Radar Positions
Site Listing

ABILENE	TX	2
AKRON/CANTON	OH	1
ALLENTOWN	PA	1
AMARILLO	TX	1
ANCHORAGE	AK	2
ASHEVILLE	NC	1
ATLANTIC CITY	NJ	1
AUGUSTA	GA	1
AUSTIN	TX	2
BAKERSFIELD	CA	2
BANGOR	ME	1
BATON ROUGE	LA	1
BEAUMONT	TX	2
BILLINGS	MT	1
BINGHAMTON	NY	1
BISMARCK	ND	1
BOISE	ID	2
BURLINGTON	VT	1
CASPER	WY	1
CEDAR RAPIDS	IA	1
CHAMPAIGN	IL	1
CHARLESTON	SC	2
CHARLESTON	WV	1
CHATTANOOGA	TN	1
CLARKSBURG	WV	1
COLORADO SPRINGS	CO	1
COLUMBIA	SC	2
COLUMBUS	GA	2
CORPUS CHRISTI	TX	2
DAYTONA BEACH	FL	1
DEPOT RELOCATE	OK	4
DULUTH	MN	1
ELMIRA	NY	1

ERIE	PA	1
EUGENE	OR	1
EVANSVILLE	IN	1
FAATC 1	NJ	3
FAIRBANKS	AK	1
FARGO	ND	2
FAYETTEVILLE	NC	1
FLINT	MI	1
FLORENCE	SC	2
FORT MYERS	FL	1
FORT SMITH	AR	2
FORT WAYNE	IN	1
FRESNO	CA	2
GRAND RAPIDS	MI	1
GREAT FALLS (MALMSTROM)	MT	1
GREEN BAY	WI	1
GREENSBORO	NC	2
GREER	SC	1
GRIFFIS AFB (ROME)	NY	1
GUAM	GM	1
GULFPORT	MS	1
HARRISBURG	PA	1
HILO	HI	1
HUNTINGTON	WV	1
HUNTSVILLE	AL	1
JACKSON	MS	1
KALAMAZOO	MI	1
KNOXVILLE	TN	1
LAFAYETTE	LA	1
LAKE CHARLES	LA	2
LANSING	MI	2
LEXINGTON	KY	1
LINCOLN	NE	1
LITTLE ROCK	AR	2
LONGVIEW	TX	2
LOWER RIO GRANDE	TX	2
LUBBOCK	TX	3
MACON (ROBINS AFB)	GA	1
MADISON	WI	1
MANCHESTER (NASHUA)	NH	1
MANSFIELD	OH	1
MERIDIAN	MS	1
MIDLAND	TX	3
MOBILE	AL	1
MOLINE	IL	1
MONROE	LA	2
MONTEREY	CA	2
MONTGOMERY (MAXWELL AFB)	AL	1
MOSES LAKE	WA	1
MUSKEGON	MI	1
OTIS AFB (FALMOUTH)	MA	1
PALM SPRINGS	CA	2
PASCO	WA	1
PENSACOLA	FL	3
PENSACOLA-2ND SYSTEM	FL	3
PEORIA	IL	2
PORTLAND	ME	2
PUEBLO	CO	1

READING	PA	1
RENO	NV	2
RICHMOND	VA	1
ROANOKE	VA	1
ROCHESTER	MN	1
ROCKFORD	IL	1
SAGINAW	MI	1
SANTA BARBARA	CA	1
SAVANNAH	GA	2
SIOUX CITY	IA	1
SIOUX FALLS	SD	1
SOUTH BEND	IN	1
SPOKANE (FAIRCHILD AFB)	WA	2
SPRINGFIELD	MO	1
SPRINGFIELD	IL	1
STOCKTON	CA	1
TALLAHASSEE	FL	1
TERRE HAUTE	IN	1
TOLEDO	OH	2
TRI-CITY (BRISTOL)	TN	1
WACO	TX	2
WATERLOO	IA	1
WEST PALM BEACH	FL	3
WICHITA	KS	1
WILKES BARRE	PA	1
WILMINGTON	NC	1
YOUNGSTOWN	OH	1

ARTS II UPS
Site Listing

REGION	LOCATION
AAL	Anchorage
ACE	Wichita
AEA	FAA Technical Center Richmond
ANM	Colorado Springs
ASO	Pensacola West Palm Beach Daytona Beach Greensboro Charleston
ASW	Austin Lubbock Little Rock
AWP	Stockton
AAC	FAA Academy FAA Depot Testbed

Long Range Radar
Transmitter Modification
Site Listing

Oscaloosa, KS
Las Vegas, NV
FAA Academy, OK
Denver, CO
Ft. Worth, TX
London, OH
Pt. Mugu, CA
Trevose, PA
Pico del Este, PR
Fallon, NV
Rogers, TX
Gallup, NM
Grand Junction, CO
Cleveland, OH
Detroit, MI
Francis Peak, UT
Indianapolis, IN
La Grange, IN
Marietta, GA
Alexandria, LA
Texarkana, AR
West Mesa, NM
Ashburn, GA
St. Albans, VT
Amarillo, TX
Memphis, TN
Mesa Rica, NM
Minneapolis, MN
Montgomery, AL
Nashville, TN
Charlotte, NC
Benton, PA
San Pedro, CA
Key West, FL
Murphy Dome, AK
Port Austin, MI
Laurel Mt., CA
Valdosta, GA

Boron, CA
Gettysburg, SD
Hanna City, IL
Battle Mountain, NV
Oakdale, PA
Seattle, WA
St. Louis, MO
Hutchinson, KS
Benson, NC
Ashton, ID
Boise, ID
Cedar City, UT
Oklahoma City, OK
Red Bluff, CA
Russelville, AR
Cummington, MA
Haleyville, AL
Sacramento, CA
Citronella, AL
Lackland, TX
Garden City, KS
Omaha, NE
Horicorn, WI
Lovell, WY
Lusk, WY
Lynch, KY
Elwood, NJ
North Platte, NE
Rock Springs, WY
Trinidad, CO
Tyler, MN
Vandenburg AFB, CA
Dansville, NY
Klamath Falls, OR
Monroe, OR
Hanna City, IL
Withrop, MA
Calumet, MI

Instrument Landing Systems
Site Listing

ILS AN/GRN-27 Replace:

1.	Academy, AAC-943		
2.	Dallas/Ft. Worth	CIX	18L
3.	Dallas/Ft. Worth	JHZ	17R
4.	Dallas/Ft. Worth	FLQ	17L
5.	Dallas/Ft. Worth	PKQ	35R
6.	Dallas/Ft. Worth	RRA	31R
7.	Dallas/Ft. Worth	VYN	18R
8.	Wichita, KS	TWI	01L
9.	Anchorage, AK	ANC	06R
10.	Jackson, MS	JAN	15L

ILS Capture Effect Glide Slope Modifications:

	Region	Quantity
1.	AAL	1
2.	ACE	6
3.	AEA	4
4.	AGL	9
5.	ANE	1
6.	ANW	6
7.	ASO	20
8.	ASW	7
9.	AWP	1

ICSS Backup
Site Listing

SPRINGFIELD, MO
ST. LOUIS, MO
LINCOLN, NE
DES MOINES, IA
WILKES BARRE, PA
JFK, NY
BINGHAMTON, NY
BUFFALO, NY
GRIFFISS AFB, NY
NEWARK, NJ
ERIE, PA
LAGUARDIA, NY
NORFOLK, VA
MUSKEGON, MI
MANSFIELD, OH
COLUMBUS PORT, OH
GREEN BAY, WI
ROCKFORD, IL
DETROIT, MI
PORTLAND, ME
BANGOR, ME
GRAND JUNCTION, CO
CHEYENNE, WY
MISSOULA, MT
SPOKANE, WA
LOUISVILLE, KY
SARASOTA, FL
GREER, SC
MACON, GA
ALBANY, GA
MIDLAND, TX
TYLER, TX
FAYETTEVILLE, AR
SHREVEPORT, LA
TULSA, OK
BROWNSVILLE, TX
TULSA, OK
MONTEREY, CA
ONTARIO, CA
EDWARDS, CA

KANSAS CITY, MO (DOWNTN)
KANSAS CITY, MO (MCI)
WATERLOO, IA
WICHITA, KA
DULLES, VA
CHARLESTOWN, WV
ALBANY, NY
ROANOKE, VA
HARRISBURG, PA
ATLANTIC CITY, NJ
HUNTINGTON, WV
PITTSBURGH, PA

KALAMAZOO, MI
PEORIA, IL
MOLINE-QUAD CITY, IL
MILWAUKEE, WI
CLEVELAND, OH
BISMARK, ND
FALMOUTH, MA
BURLINGTON, VT
BILLINGS, MT
CASPER, WY
EUGENE, OR

FAYETTEVILLE, NC
WILMINGTON, NC
KNOXVILLE, TN
FLORENCE, SC
BLOUNTVILLE, TN
BEAUMONT, TX
ABILENE, TX
DYESS AFB, TX
NEW ORLEANS, LA
EL PASO, TX
CORPUS CHRISTI, TX
NEW ORLEANS, LA (MSY)
OAKLAND, CA
KAHULUI, HI

WEATHER SENSORS
SITE LISTING

CLOUD HEIGHT INDICATOR (CHI)
REMOTE READOUT HYGROTHERMOMETER (RRH)

LOCATION	STATE	LOCID	CHI	RRH
KENAI	AK	ENA	X	X
COROBUA	AK	CDV		X
PALMER	AK	PAQ		X
KETCHIKAN	AK	KTN		X
SITKA	AK	SIT		X
TANAMA	AK	TAL		X
NORHTWAY	AK	ORT		X
TALKEETNA	AK	TKA		X
JUNEAU	AK	JNU		X
LANCASTER	PA	LNS	X	X
MIDDLETOWN	PA	MDY	X	X
READING	PA	RDG	X	X
PHILIPSBURG	PA	PSB	X	X
WHEELING	WV	HLG	X	X
FARMINGDALE	NY	FRG	X	X
POUGHKEEPSIE	NY	POU	X	X
TRENTON	NJ	TTN	X	
MOMSTON	NJ	MMU		X
CALDWELL	NJ	CDW		X
HARPERSTOWN	PA	HRG		X
CHARLOTTESVILLE	VA	CHO		X
CLARKSBURG	WV	CKB		X
NANTUCKET	MA	ACK	X	
BANGOR	ME	BGR	X	
BEDFORD	MA	BED	X	
NEW BEDFORD	MA	EWB	X	
HYANNIS	MA	HYA	X	
WESTFIELD	MA	BAF	X	
NEW HAVEN	CT	HVN	X	
TWINFALLS	ID	TWF	X	X
MOSES LAKE	WA	MWH	X	X
PASCO	WA	PSC	X	X
ASPEN	CO	ASE	X	X
KLAMATH FALLS	OR	LMT	X	X
OGDEN	UT	OGD	X	X
RENTON	WA	RNT	X	X
EVERETT	WA	PAE	X	
BROOMFIELD	CO	BJC	X	
TROUTDALE	OR	TTD	X	
EAGLEWOOD	CO	APA	X	
JEFFERSON	CO	BJC		X
CENTENNIAL	CO	APA		X
PORTLAND	OR	TTD		X
ATLANTA	GA	PDK	X	X
FT. LAUDERDALE	FL	FLL	X	X
SPARTANBURG	SC	SPA	X	X
ATLANTA	GA	FTY	X	
FAYETTEVILLE	NC	FAY	X	
FT. MYERS	FL	FMY	X	
GREENVILLE	SC	GMU	X	

GULFPORT	MS	GPT	X	
MIAMI	FL	OPF	X	
MYRTLE BEACH	SC	CRE	X	
MIAMI	FL	TMB	X	
ORLANDO	FL	ORL	X	
PANAMA CITY	FL	PFN	X	
SARASOTA	FL	SRQ	X	
ST. PETERSBURG	FL	PIE	X	
ST. PETERSBURG	FL	SPG	X	
WINSTON SALEM	NC	INT	X	
GREENVILLE	MS	GLH		X
FT. LAUDERDALE	FL	FXE		X
KINSTON	NC	ISO		X
ST. CROIX	VI			X
CAPE GIRARDEAN	MO	CGI	X	X
OTTUMWA	IA	OTM	X	X
HUTCHINSON	KS	HUT	X	
ST. JOSEPH	MO	STJ	X	
CHANUTE	KS	CNU		X
TOPEKA	KS	TOP		X
RUSSELL	KS	RSL		X
SAILVA	KS	SLN		X
VICHY	MO	VIH		X
CHESTERFIELD	MO	SUS		X
DALLAS	TX	ADS	X	X
DALLAS	TX	RBD	X	X
DALLAS	TX	DAL	X	X
FARMINGTON	NM	FMN	X	X
FT WORTH	TX	FTW	X	X
HOBBS	NM	HAB	X	X
HOUSTON	TX	HOU	X	X
LONGVIEW	TX	GGG	X	X
NEW ORLEANS	LA	NEW	X	X
OKLAHOMA CITY	OK	PWA	X	X
SAN ANTONIO	TX	SSF	X	X
SANTA FE	TX	SAF	X	X
TULSA	OK	RVS	X	X
CLINTON	OK	CSM	X	
HOT SPRINGS	AR	HOT	X	
PLAINVIEW	TX	PVW	X	
SHREVEPORT	LA	DTN	X	
ENID	OK	WDG		X
GALLUP	NM	GUP		X
HARLINGTON	TX	HRL		X
HOUMA	LA	HUM		X
HOUSTON	TX	DWH		X
JONESBORO	AR	JBR		X
LOREDO	TX	LRD		X
McALLEN	TX	MFE		X
TUCUMCARI	NM	TCC		X
BURBANK	CA	BUR	X	X
HAWTHORN	CA	HHR	X	
HAYWARD	CA	HWD	X	
LaVERNE	CA	POC	X	
MONTEREY	CA	MRY	X	
NAPA	CA	APC	X	
OAKLAND	CA	OAK	X	
ONTARIO	CA	ONT	X	

OXNARD	CA	OXR	X		
PALMDALE	CA	PMD	X		
PALO ALTO	CA	PAO	X		
RIVERSIDE	CA	RAL	X		
SAN CARLOS	CA	SQL	X		
SAN JOSE	CA	SJC	X		
SAN JOSE	CA	RHV	X		
SAN LUIS OBISPO	CA	SBP	X		
SANTA ROSA	CA	STS	X		
TORRANCE	CA	TOA	X		
VAN NUYS	CA	VNY	X		
SACRAMENTO	CA	SMF	X		
MODESTO	CA	MOD	X		
CONCORD	CA	CCR	X		
CLEVELAND	OH	BKL	X		X
CHAMPAIGN	IL	CMI	X		X
ALTON	IL	ALN	X		X
CHICAGO-MEIGS	IL	CGX	X		X
CHICAGO	IL	MDW	X		X
COLUMBUS	OH	OSU	X		X
KALAMAZOO	MI	AZO	X		
MINNEAPOLIS	MN	FCM	X		
MINNEAPOLIS	MN	MIN	X		
ST. PAUL	MN	STP	X		
DECATUR	IL	DEC	X		
JAMESVILLE	WI	JVL	X		
MILWAUKEE	WI	MWC	X		
MUNCIE	IN	MIE	X		
BATTLE CREEK	MI	BTL	X		
YPSALANTI	MI	YIP	X		
MARQUETTE	MI	MQT			X
DETROIT	MI	YIP			X
CLEVELAND	OH	CGF			X
OSHKOSH	WI	OSH			X
DEPOT	OK			X	X

Terminal Radar Establishment
Site Listing

Second Sensor:

Detroit Metro, MI
Boston, MA

New Locations:

Columbia, MO
Medford, OR
San Angelo, TX
Fayetteville, AR
Yakima, WA
Lynchburg, VA
Idaho, Falls, ID
Topeka, KS
Grand Junction, CO

SENATOR LAUTENBERG: What is your estimated cost for the entire interim support plan and when will it be completed.

ANSWER: The estimated cost for the entire ISP is $517.2 million. The ISP Program is planned to be completed by mid-1994, with the exception of one item, the long-range radar solid-state upgrade, which will be completed by July 1997.

SENATOR LAUTENBERG: Have you prioritized your needs within the Interim Support Plan? If not, how were all needs--computer memory expansion, radars, etc.--established on an equal priority basis?

ANSWER: Certain elements of the ISP are more critical than others. For instance, computer memory upgrade of ARTS IIIA is critical to capacity and safety enhancements and to the implementation of the Mode C Intruder function into terminal air traffic control. All projects in ISP, however, are vital to preserve the existing NAS facilities and equipment availability until replaced or retired by NAS Plan projects.

SENATOR LAUTENBERG: What are your criteria for including or excluding projects under the ISP? For example, why are some instrument landing system replacements included in the ISP and not others, and vice versa?

ANSWER: The criteria for including or excluding projects under the ISP is based upon the critical nature of equipment already in the field and capacity shortfalls; and also, the need to forestall system support and capacity problems that are vital to sustaining the air traffic control system until the implementation of the NAS Plan.

Under the ISP, we are replacing 10 AN/GRN-27 ILSs. The FAA has determined that all AN/GRN-27s shall be replaced due to age and maintainability. The 10 sites that will be acquired through ISP, are the most urgently needed.

SENATOR LAUTENBERG: For each of the projects/equipments covered under your ISP budget request of $110 million, how does your budget document reflect the fact that they are also not included as part of the separate budget request for those individual items?

ANSWER: The FAA budget document does not reflect that ISP items are not included as part of separate budget requests. However, the FAA's internal budget procedures provide for intra-agency coordination to prevent duplication of budget requests.

NEW TERMINAL RADAR FACILITIES

SENATOR LAUTENBERG: As part of your so-called "Interim Support Plan," which you estimate to cost $517 million, you plan to establish new terminal radar facilities at a total estimated cost of $220 million. What is your timetable for establishing these facilities?

ANSWER: The timetable for establishing these facilities is as follows:

ASR-9 Contract Award	2/90
First ASR-9 Delivery Date	1/92
First Operational Readiness Demonstration	7/92
Last Operational Readiness Demonstration	11/92

SENATOR LAUTENBERG: If you consolidate terminal radar facilities with en route centers under the NAS Plan, won't the proposed new

terminal radar facilities have to be dis-established and moved?

ANSWER: If we consolidate these terminal radar facilities with en route centers under the NAS Plan the radar data will be remoted; the air traffic control radar functions and associated personnel will be transferred; and the buildings will be utilized for the remaining (nonradar) FAA functions.

ATCT/TRACON MODERNIZATION

SENATOR LAUTENBERG: Please update the list on pages 968 and 969 of last year's hearing record relative to your fiscal year 1990 request for $7.2 million.

ANSWER: The following locations are to be funded with the $7,220,019 requested for our FY 1990 airport traffic control tower/terminal radar approach control (ATCT/TRACON) facilities modernization program:

CITY	STATE
Texarkana	Arkansas
Deer Valley	Arizona
Goodyear	Arizona
Mesa	Arizona
Scottsdale	Arizona
Oakland	California
San Diego (Miramar)	California
San Luis Obispo	California
Aspen	Colorado
Colorado Springs	Colorado
Tampa	Florida
Alexandria (Esler Field)	Louisiana
Baton Rouge	Louisiana
Portland	Maine
Flint	Michigan
Santa Fe	New Mexico
Niagara Falls	New York
Fargo	North Dakota
Columbus (Port)	Ohio
Youngstown	Ohio
Enid	Oklahoma
Addison	Texas
Longview	Texas
Midland	Texas
Chantilly (Dulles)	Virginia
Yakima	Washington

SENATOR LAUTENBERG: Also indicate those facilities on which work was started and will be completed in fiscal year 1989.

ANSWER: Very few, if any, of the locations scheduled for ATCT/TRACON modernization in the FY 1989 budget will be completed in FY 1989. Most of these projects require extensive engineering and procurement of equipment which is initiated in FY 1989 but is not completed until a future year.

TOWER COMMUNICATIONS SYSTEMS

SENATOR LAUTENBERG: You are requesting $2 million to conduct preparations for award of a contract in fiscal year 1991 for the TCS, with future requirements estimated at $138.8 million. Why did you need $2 million to "prepare" for a contract?

ANSWER: The TCS contract is scheduled to be awarded in early FY

1991, therefore, the majority of the pre-award contract activities will be conducted using FY 1990 funds.

SENATOR LAUTENBERG: What specifically will the funds by used for?

ANSWER: The $2 million will be used to develop the Functional Specification, Statement of Work, Master Test Plan plus other documents that support the Request for Proposal, i.e., Contractor's Data Requirements List and Data Item Description. The funds will also support the following pre-contract award activities: (1) evaluating 4 to 6 potential contractor's off-the-shelf system by way of Operational Capability Demonstrations; (2) sponsoring a bidder's conference to inform potential commercial vendors the scope of the program; and (3) conducting a Production Capability Survey at a limited number of contractor facilities.

SENATOR LAUTENBERG: You state that $11.2 million appropriated last year are for "interim capability". What was the interim capability? Was it for additional ICSS units? Provide documentation showing that these additional units were TCS designated sites and not meant to be ICSS sites.

ANSWER: The additional systems are needed to provide voice switching capability similar to currently installed ICSS at towers scheduled for TCS. These systems are necessary due to the timing of new tower establishments and relocations that occur prior to delivery of TCS units.

SENATOR LAUTENBERG: Explain the relationship between the Integrated Communications Switching System (ICSS) and the TCS. How do the two systems differ?

ANSWER: TCS is an end-state system defined in the NAS system specification. ICSS lacks some of the functions and interfaces which are required of the future TCS.

SENATOR LAUTENBERG: Will both systems be installed at the same location? Explain.

ANSWER: No, TCS will be installed at locations without ICSS.

GROWTH IN FACILITIES AND EQUIPMENT REQUIREMENTS

SENATOR LAUTENBERG: Your fiscal year 1990 request for $1.95 billion for facilities and equipment represent a 41 percent increase over last year's. This growth seems to be driven to a large extent by increases in requirements for new equipment and the costs to produce equipment to very stringent specifications. Can you assure the Committee that the operational availability requirements you have set for individual systems are not overly stringent or inconsistent with their use in relation to other systems?

ANSWER: FAA has a very structured configuration control process aimed at setting operational requirements. This process ensures that all requirements are thoroughly screened and are compatible with existing systems.

SENATOR LAUTENBERG: What happened to those requirements which have been identified as necessary by engineering boards but which are not yet funded?

ANSWER: A requirement that is approved by FAA's configuration management process becomes a candidate for funding through FAA's

budget process. Like any other FAA budget candidate, the requirement may be funded immediately or be deferred based on the availability of funding from Congress.

SENATOR LAUTENBERG: Are most unfunded requirements likely to be funding candidates in following years? Provide examples of such requirements and associated costs.

ANSWER: New requirements may be funded immediately or deferred until future years depending on the operational need. New requirements that in the past have been funded immediately are Interim Support Plan ($517.2), TDWR ($550.0), Denver Airport ($156.4), and L.A. Basin ($102.8). Examples of approved projects that have been proposed for funding in future years are ASR-10 and Air Traffic Control Beacon Indicator Replacement. Specific funding levels for these programs are still under review.

SENATOR LAUTENBERG: Is there a "bow wave" of deferred requirements awaiting formal funding requests? What is the magnitude of the bow wave, and when will it occur?

ANSWER: There is a bow wave of unfunded requirements awaiting formal budget requests. This bow wave is particularly critical in FY 1991 and FY 1992 when FAA total requirements for each year are approximately $3.0 billion.

SENATOR LAUTENBERG: How does FAA plan to control the growth of requirements accumulating in modernizing the air traffic control system?

ANSWER: FAA has a configuration management process that validates NAS requirements. The NAS modernization requirements are expected to peak in the FY 1991 through FY 1995 timeframe and then begin to taper off.

SENATOR LAUTENBERG: What do you expect next year's F&E request to look like at this point?

ANSWER: FAA's FY 1991 request should be approximately $2.6 to $3.2 billion based on currently known requirements. The specific content is under careful review and will be determined during the Executive Branch reviews this fall.

SENATOR LAUTENBERG: GAO has recommended that FAA prioritize its modernization activities. What alternative does FAA have if such a strategy is not implemented?

ANSWER: Most of FAA's current budget request is associated with ongoing contracts, or new initiatives that are considered operationally essential. FAA has already done considerable prioritization in arriving at the $1.955 billion budget request to Congress. If funding was not provided, FAA's only alternative would be to slip commitments associated with the NAS Plan.

SENATOR LAUTENBERG: What prioritization methodologies has FAA or the SEI contractor developed to ascertain the impact of different F&E funding levels?

ANSWER: Some of the considerations used by FAA in prioritizing programs are as follows:

- Impact on safety, capacity, or efficiency
- New start--versus--ongoing contract
- Termination costs that might have to be born by the Government
- Immediate operational need
- Riskiness of schedule/cost estimates

RENTAL PAYMENTS

SENATOR LAUTENBERG: Your facilities and equipment budget request for "rental payments to others" shows these costs increasing almost threefold since fiscal year 1988 from $5.5 million to $15 million. What is the reason for this drastic increase?

ANSWER: The increase reflected in the object class schedule is in error. The FY 1989 amount is overstated by approximately $5 million and the FY 1990 amount is overstated by approximately $7 million. Once this adjustment is made the annual increase is within reasonable boundaries. The funds erroneously included in "rental payments to others" should have been included in "other services".

AIRPORT IMPROVEMENT PROGRAM

SENATOR LAUTENBERG: The need for additional runway capacity is one of the most serious problems at our major hub airports. The President's campaign position paper on aviation promised to "provide the leadership needed to break the logjam that has prevented any major airport in this country from being built since the early 1970s." What is your agency doing to break this logjam and, more specifically, what are you doing to overcome the usual local opposition to new airports and airport expansions?

ANSWER: The FAA is working with the aviation industry to measure and publicize the benefits of airports, generating local support for airport development. We are preparing a long range airport system plan to demonstrate that certain airport development is inevitable and unavoidable if the nation is to continue to have an adequate air transportation system. We are working with the owners and users of the most congested airports to develop capacity enhancement plans. We have also developed a variety of desktop computer based techniques to simulate airport operations, measure the benefit of certain improvements, and demonstrate the effects of quieter aircraft engines, soundproofing, and other noise abatement strategies.

SENATOR LAUTENBERG: Does your agency know how much airport capacity we already have in this country for commercial aircraft and the extent to which this capacity is being used? If so, what is the utilization, and if not, have you attempted to determine the amount of available capacity?

ANSWER: We know that airport capacity is spread much more evenly than demand, which is concentrated at the busiest urban airports. Some of the future increase in commercial operations can be accommodated at uncongested airports. However, convenience and efficiency will require that the growing demand in metropolitan areas, particularly on the east and west coasts, be accommodated at nearby airports.

SENATOR LAUTENBERG: In your review, to what extent is the airport capacity problem due to the inefficient use of available runway space versus the need for additional runways?

ANSWER: Great efforts have been made by airlines to encourage travel in off-peak hours and by airport authorities to make efficient use of their facilities. I believe that by far the largest part of the remaining airport capacity problem is due to the need for more runways and supporting facilities, rather than being due to inefficiency.

SENATOR LAUTENBERG: According to your recent report on airport capacity needs, 11 major airports now experience severe chronic delays in operations as a result of traffic congestion, and that number could reach 29 by 1996.

To what extent could this congestion be relieved if airlines were to establish hubs at existing smaller airports? For example, the airlines have already established hubs at airports such as Charlotte, Dayton, Nashville, and Raleigh-Durham. Aren't there other locations where similar hubs could be established?

ANSWER: The Airport Capacity Enhancement Plan, produced by ACP and updated annually, has identified more than two dozen airports which are potential new connecting hubs - an existing traffic base (top 100 enplanements), multiple IFR arrival capacity, good geographical location, and expandable facilities. The Plan also contains an estimate of the unused capacity at these airports.

AIRPORT PRICING SYSTEMS

SENATOR LAUTENBERG: There are some who believe that we should develop more efficient pricing mechanisms to determine if additional capacity is economically justified. It has been argued that airlines generally do not pay extra for peak-hour use of congested airports, nor are the taxes paid for a particular flight related to the cost of providing air traffic control services for that flight. Do you believe a different pricing system could help to alleviate the congestion problem?

ANSWER: Yes. It could help by encouraging use of larger aircraft, which would result in fewer total operations. However, travellers have strong preferences as to when they wish to fly. FAA does not believe that a different pricing system would significantly affect diurnal traffic patterns which currently exist.

Even with modified pricing systems, FAA believes that substantial increases in runway capacity are required to adequately meet the needs of air transportation. Currently, 25 airports are experiencing capacity problems. By 2000, more than 40 airports are projected to have capacity shortfalls.

SENATOR LAUTENBERG: Under your budget request for airport grants, you are requesting a total of $250 million for airport capacity grants under section 507(c)(2). What is the reason for this proposed statutory change, and if it were not approved, how much would be available for discretionary airport capacity projects?

ANSWER: The proposal will assure a specific minimum set-aside for capacity under any appropriation level. At lower appropriation levels, the capacity fund is inadequate. For example, if the proposal is not enacted, the capacity/safety/security/noise fund will amount to $115.4M under the Administration's proposed grant level of $1,350M for FY 1990 (assuming entitlement carryover of $75.0M).

SENATOR LAUTENBERG: Under your proposal, what dollar and percentage reductions in other funding categories would be required?

ANSWER: If the grant level for FY 1990 remains at the $1,350M level requested by the Administration, the following reduction would be made to assure a capacity minimum of $250M (assuming a $75M carryover): Primary airport entitlements reduced by 21% and cargo entitlements reduced by 21%. All other categories remain the same.

AIRPORT IMPROVEMENT PROGRAM

SENATOR LAUTENBERG: How much of your $1.4 billion Grants-in-aid for Airports program did you obligate during the first six months of fiscal year 1989? What is the obligation pattern and spending rate of these grants?

ANSWER: Obligations through March 30, 1989, were $225.3 million for 16.1 percent of the expected fiscal year total of $1.4 billion. This is the highest second quarter amount in four years. The majority of grants are obligated during the second half of the fiscal year. Expenditures against these obligations will be made over six years with 16 percent expended in the first year, 22 percent the second, 43 percent the third, 10 percent in the fourth, 5 percent in the fifth and 4 percent in the sixth year.

SENATOR LAUTENBERG: You recovered $21,377,000 in prior year obligations in fiscal year 1988. From what projects were these funds recovered?

ANSWER: Recoveries are derived from close out adjustments to hundreds of prior fiscal year projects.

SENATOR LAUTENBERG: Have you had any recoveries to date during fiscal year 1989?

ANSWER: Recoveries are approximately $13.8 million through April 30, 1989.

SENATOR LAUTENBERG: At the end of FY 1989, you project an unobligated balance of $709,605,000 in contract authority. Will any of this contract authority lapse at the end of the current fiscal year?

ANSWER: Some of the contract authority was rescinded by Congress but the amounts that were not rescinded will not lapse.

SENATOR LAUTENBERG: You are requesting a $1.35 billion obligation ceiling. What dollar amount of applications do you have pending?

ANSWER: We have over $7 billion pending.

BREAKDOWN OF APPLICATIONS

SENATOR LAUTENBERG: Would you provide a breakdown of your pending applications by airport category?

ANSWER: The breakdown follows:

Pending Applications by Airport Category
(in millions of dollars)

	Number	Amount
Primary/Commercial Service	835	$ 5,572.1
General Aviation/Reliever	1,372	1,666.8
Total	2,207	$ 7,238.9

SENATOR LAUTENBERG: In fiscal year 1988, nine grants were awarded to start construction of new or replacement airports. List the airports.

ANSWER: The listing follows:

STATE CITY AIRPORT	AIRPORT TYPE
FLORIDA Jupiter New	Reliever
LOUISIANA Ruston New	General Aviation
MISSOURI Excelsior Springs/ Liberty New	Reliever
TEXAS Austin New	Primary
TEXAS Fort Worth Alliance	Reliever
TEXAS LaGrange New	General Aviation
TEXAS Portland New	General Aviation
TEXAS Waxahachie New	General Aviation
WASHINGTON Port Townsend New	General Aviation

SENATOR LAUTENBERG: Have you made any such grants during the current year? If so, would you provide a listing of these airports for the record?

ANSWER: No grants for construction of new or replacement airports have been made so far this fiscal year.

SENATOR LAUTENBERG: Would you indicate for the record the actions taken with regard to the airports identified on pages 53 and 54 of House Report 100-691 and on page 18 of House Report 100-957 accompanying the fiscal year 1989 Transportation Appropriations Bill?

ANSWER: The listing follows

FY 1999 PLACE NAME REPORTS AND PLACE NAME ILS LOCATIONS

AS OF 08/19/99

RANKED BY	AIRPORT TYPE	STATE	CITY, AIRPORT	SCOPE OF DEVELOPMENT	TOTAL REQUESTED	PRELIM FY 99 DISCRETIONARY PLAN ($ MIL)	REMARKS	FUNDABLE INCREMENT	ENTITLEMENTS USED
	C	GA	PASCAGOULA, MSY	RW AND TW LIGHTING	0.37	0.23	EXPECT FUNDING AS SHOWN	0.23	
					0.23	0.00	FUNDED WITH STATE ENTITLEMENTS	0.10	0.10
		RE	STARKVILLE, OKTIBBEHA CO	OVERLAY TW	0.26	0.00	FUNDING PLANS STILL BEING DEVELOPED	0.26	
		RE	WATER VALLEY, MUNI	OVERLAY RW, TW AND APRON	1.62	0.00	FUNDING PLANS STILL BEING DEVELOPED	0.75	
		RJ	WOODVILLE, MUNI	DEMOB RW	6.51	0.00	FUNDING PLANS STILL BEING DEVELOPED	1.50	
		RJ	TUPELO, MUNI	CONST RW AND TWY	4.39	0.00	FUNDING PLANS STILL BEING DEVELOPED	1.00	
		RP	NEWSOM, STENNIS	DEMOB APRON				0.09	
		RR	LUMBERTON, MUNI	EXTEND RW AND TW; LAND	2.00	0.00	FUNDING PLANS STILL BEING DEVELOPED	0.08	
		RR	CHARLES, MUNI	EXTEND RW	0.90	0.00	FUNDING PLANS STILL BEING DEVELOPED	0.32	0.32
		RR	FAIRVIEW, MUNI	OVERLAY RW, TW AND APRON	1.07	0.00	FUNDED WITH STATE ENTITLEMENTS	1.05	
		RR	ASHEBORO, NR HIGHLANDS	LAND FOR APPROACHES; ENT AND OVERLAY RW	1.65	0.00	FUNDING PLANS STILL BEING DEVELOPED	1.25	
		RR	HIGHLANDS, TAZEWELL CO	COMPLETE NEW AIRPORT	1.25	1.25	EXPECT FUNDING AS SHOWN	10.00	
			SUBTOT		34.83	1.48		388.31	
			SUBTOT ALL EXCEPT ILS LOCATIONS		904.11	38.38			
			ILS LOCATIONS						
		FL	MIAMI, INTL		0.84	0.84	EXPECT FUNDING AS SHOWN	0.84	
		FL	ORLANDO, INTL		3.00	3.00	EXPECT FUNDING AS SHOWN	3.00	
		IN	INDIANAPOLIS, INTL		4.96	4.00	EXPECT FUNDING AS SHOWN	4.00	
		MA	BOSTON, LOGAN		0.00		INSUFFICIENT FUNDS IN $20.0M SET ASIDE		
		NJ	NEWARK, INTL		0.00		INSUFFICIENT FUNDS IN $20.0M SET ASIDE		
		OH	CINCINNATI, INTL		4.87	4.00	EXPECT FUNDING AS SHOWN	4.00	
		TN	MEMPHIS, INTL		2.00	2.00	EXPECT FUNDING AS SHOWN	2.00	
		TN	NASHVILLE, METRO		8.70	8.70	EXPECT FUNDING AS SHOWN	8.70	
		UT	SALT LAKE CITY, INTL		2.00		INSUFFICIENT FUNDS IN $20.0M SET ASIDE		
		VA	WASHINGTON, DULLES		0.00		INSUFFICIENT FUNDS IN $20.0M SET ASIDE		
	A	AR	WEST MEMPHIS, MUNI		1.00		INSUFFICIENT FUNDS IN $20.0M SET ASIDE		
		AR	BELDEN, ALLAIRE		0.00		INSUFFICIENT FUNDS IN $20.0M SET ASIDE		
		AR	SELMA, CRAIG FIELD		1.35		INSUFFICIENT FUNDS IN $20.0M SET ASIDE		
		GA	DOUGLAS, HOMER-ANDERS FLD		0.00		INSUFFICIENT FUNDS IN $20.0M SET ASIDE		
		GA	POWDER CITY, MUNI		0.00				
		GA	MAGNOLIA, MUNI		0.00		INSUFFICIENT FUNDS IN $20.0M SET ASIDE		
		GA	MIDVILLE, MUNI		1.60		INSUFFICIENT FUNDS IN $20.0M SET ASIDE		
			SUBTOT		39.42	19.84		19.84	
			GRAND TOTAL		1002.53	58.16		878.18	

AIRPORT TYPES: PC - PRIMARY, CAPACITY CONSTRAINED; P - PRIMARY, OTHER; R - RELIEVER; C - COMMERCIAL SERVICE; GA - GENERAL AVIATION

COMMON ABBREVIATIONS USED: CONST - CONSTRUCT; DU - DUMMY; TW - TAXIWAY; PREP - PREPARATION; EXT - EXTEND; REHAB - REHABILITATE; DEV - DEVELOPMENT; EQE - SNOW REMOVAL EQUIPMENT; STREN - STRENGTHEN; RELOC - RELOCATE; ENTR - ENTRANCE; APPD - APPROVED; ENT - ENTITLEMENTS; LOI - LETTER OF INTENT; H - HOUSE; S - SENATE; C - CONFERENCE

SUMMARY BY AIRPORT TYPE

	TOTAL REQUESTED	PRELIM FY 99 DISCRETIONARY PLAN ($ MIL)
PRIMARY - CAPACITY	727.75	9.00
PRIMARY - OTHER	130.15	4.19
RELIEVERS	80.67	19.15
COMMERCIAL SERVICE	1.00	1.00
GENERAL AVIATION	34.83	1.49
ILS LOCATIONS	39.42	19.84
GRAND TOTAL	1002.53	58.16

FY 1999 PLANS HAVE AIRPORTS AND PLACE NAME ILS LOCATIONS

AS OF 08/19/99

NUMBER OF	GOVT	TYPE	STATE	CITY, AIRPORT	SCOPE OF DEVELOPMENT	TOTAL REQUESTED	PRELIM FY 00 DISCRETIONARY PLAN ($ MIL)	REMARKS	FUNDABLE ENTITLEMENTS	ENTITLEMENTS USED
0	0									
0	0									
0	0									

FY 1999 PLACE NAME AIRPORTS AND PLACE NAME ILS LOCATIONS — AS OF 08/15/99

NUMBER OF	AIRPORT TYPE	STATE	CITY, AIRPORT	SCOPE OF DEVELOPMENT	TOTAL REQUESTED	PRELIM FY 99 DISCRETIONARY PLAN ($ MIL)	REMARKS	FUNDABLE INCREMENT	ENTITLEMENTS USED
C	GA	MS	PASCAGOULA, NEW	RW AND TW LIGHTING	0.37	0.23	EXPECT FUNDING AS SHOWN	0.23	
R C	GA	MS	STARKVILLE, OEG M BRYAN	OVERLAY TW	0.23	0.00	FUNDED WITH STATE ENTITLEMENTS	0.10	0.10
R C	GA	MS	WATER VALLEY, MUNI	OVERLAY RW, TW AND APRON	0.38	0.00	FUNDING PLANS STILL BEING DEVELOPED	0.00	
R C	GA	MT	HAMILTON, MUNI	BEHIND RW	1.68	0.00	FUNDING PLANS STILL BEING DEVELOPED	0.75	
R C	GA	MT	TROY, MUNI	CONST RW AND TWY	4.61	0.00	FUNDING PLANS STILL BEING DEVELOPED	1.00	
R C	GA	NV	HENDERSON, STEWART	BEHIND APRON	4.39	0.00	FUNDING PLANS STILL BEING DEVELOPED	1.00	
R C	GA	NC	LUMBERTON, MUNI	EXTEND RW AND TW; LAND	2.00	0.00	FUNDING PLANS STILL BEING DEVELOPED	0.00	
R C	GA	ND	CHANDLER, MUNI	EXTEND RW	0.00	0.00	FUNDING PLANS STILL BEING DEVELOPED	0.00	
R C	GA	OH	FAIRBORN, MUNI	OVERLAY RW, TW AND APRON	1.07	0.00	FUNDED WITH STATE ENTITLEMENTS	0.32	0.32
R	GA	OH	WILMINGTON, HQ WILMINGTON	LAND FOR APPROACHES; ENT AND OVERLAY RW	1.68	0.00	FUNDING PLANS STILL BEING DEVELOPED	1.68	
	GA	VA	RICHLANDS, TAZEWELL CO	COMPLETE NEW AIRPORT	1.25	1.25	EXPECT FUNDING AS SHOWN	1.25	
			SUBTOT		34.83	1.48		10.00	
			SUBTOT ALL EXCEPT ILS LOCATIONS		974.11	38.38		850.21	
			ILS LOCATIONS						
R R C	PC	FL	MIAMI, INTL		0.84	0.84	EXPECT FUNDING AS SHOWN	0.84	
R R C	PC	FL	ORLANDO, INTL		2.60	2.60	EXPECT FUNDING AS SHOWN	2.60	
R R C	PC	IN	INDIANAPOLIS, INTL		4.96	4.08	EXPECT FUNDING AS SHOWN	4.08	
R R C	PC	MA	BOSTON, LOGAN		0.00		INSUFFICIENT FUNDS IN $30.0M SET ASIDE		
R R C	PC	MI	DETROIT, INTL		0.00		INSUFFICIENT FUNDS IN $30.0M SET ASIDE		
R R C	PC	OH	CINCINNATI, INTL		4.87	4.08	EXPECT FUNDING AS SHOWN	4.08	
R R C	PC	TN	MEMPHIS, INTL		2.60	2.60	EXPECT FUNDING AS SHOWN	2.60	
R R C	PC	TN	NASHVILLE, METRO		6.70	6.70	EXPECT FUNDING AS SHOWN	6.70	
R R C	PC	UT	SALT LAKE CITY, INTL		2.00		INSUFFICIENT FUNDS IN $30.0M SET ASIDE		
R R C	PC	VA	WASHINGTON, DULLES		0.00		INSUFFICIENT FUNDS IN $30.0M SET ASIDE		
R R C	P	AR	WEST MEMPHIS, MUNI		1.88		INSUFFICIENT FUNDS IN $30.0M SET ASIDE		
R R C	GA	AK	KELAND, ALLAIRE		0.00		INSUFFICIENT FUNDS IN $30.0M SET ASIDE		
R R C	GA	AZ	EGLIN, CRAIG FIELD		1.38		INSUFFICIENT FUNDS IN $30.0M SET ASIDE		
R R C	GA	FL	HUTCHES, HENRY-ROGERS FLD		0.00		INSUFFICIENT FUNDS IN $30.0M SET ASIDE		
R R C	GA	GA	PONCA CITY, MUNI		0.00		INSUFFICIENT FUNDS IN $30.0M SET ASIDE		
R R C	GA	GA	NEWPORT, MUNI		0.00		INSUFFICIENT FUNDS IN $30.0M SET ASIDE		
R R C	GA	GA	OMDEN, MUNI		1.60		INSUFFICIENT FUNDS IN $30.0M SET ASIDE		
			SUBTOT		30.42	19.94		19.04	
			GRAND TOTAL		1002.53	58.16		879.18	

AIRPORT TYPES: PC - PRIMARY, CAPACITY CONSTRAINED; P - PRIMARY, OTHER; R - RELIEVER; C - COMMERCIAL SERVICE; GA - GENERAL AVIATION

COMMON ABBREVIATIONS USED: CONST - CONSTRUCT; RW - RUNWAY; TW - TAXIWAY; PREP - PREPARATION; EXT - EXTEND; REHAB - REHABILITATE; DEV - DEVELOPMENT; SNOW - SNOW REMOVAL EQUIPMENT; STHEN - STRENGTHEN; ACLOC - ALLOCATE; ENTR - ENTRANCE APPR - APPROVED; ENT - ENTITLEMENTS; LOI - LETTER OF INTENT; H - HOUSE; S - SENATE; C - CONFERENCE

SUMMARY BY AIRPORT TYPE

	TOTAL REQUESTED	PRELIM FY 99 DISCRETIONARY PLAN ($ MIL)
PRIMARY - CAPACITY	737.75	9.00
PRIMARY - OTHER	190.18	4.19
RELIEVERS	40.67	19.18
COMMERCIAL SERVICE	1.00	1.00
GENERAL AVIATION	34.83	1.48
ILS LOCATIONS	89.42	19.94
GRAND TOTAL	1002.83	58.16

SENATOR LAUTENBERG: In the fiscal year 1989 Conference report you were directed to allocate up to $20 million from the airport grant program for the purchase or lease of instrument landing systems and approach lighting at a number of airports. Have any funds been made available for this program? If so, how much and to whom?

ANSWER: The $20 million has been allocated to the following airports (based on preapplications from these airports):

Orlando, FL	$ 2.80M
Memphis, TN	2.80
Nashville, TN	5.70
Miami, FL	0.54
Covington, KY (Cincinnati)	4.00
Indianapolis, IN	4.00

	$19.84M

SENATOR LAUTENBERG: How will these instrument landing systems be maintained?

ANSWER: Current legislation requires the sponsor receiving grants for Instrument Landing Systems (ILSs) to maintain and operate the equipment for the useful life of the equipment (usually considered to be 15 years).

SENATOR LAUTENBERG: Provide for the last five fiscal years a listing of the airports that received discretionary funds and the amount provided. Include fiscal year 1989 to date.

ANSWER: The listing follows.

TOTAL FEDERAL FUNDS BY SITE NUMBER IN DESCENDING ORDER BY DISC FUNDS.

FISCAL YEAR(S) 85 86 87 88 89

SITE NUMBER	LOCID	AIRPORT/LOCATION	CITY	STATE	AIRPORT TYPE	HUB TYPE	DISC. FUNDS	FED. FUNDS	COUNT
23121. A	BNA	NASHVILLE METROPOLITAN	NASHVILLE	TN	P	M	36,912,555	44,934,85.	13
03640. A	ATL	THE WILLIAM B HARTSFIELD-ATLANTA INTL	ATLANTA	GA	P	L	34,065,976	104,352,760	5
23895.3 A		FORT WORTH ALLIANCE (NEW)	FORT WORTH	TX	R	L	31,000,000	31,000,000	2
03407. A	MCO	ORLANDO INTERNATIONAL	ORLANDO	FL	P	L	30,811,050	43,970,197	6
12077. A	STL	LAMBERT-ST LOUIS INTERNATIONAL	ST LOUIS	MO	P	L	28,944,693	61,176,966	10
04508.1 A	PWK	PALWAUKEE	CHICAGO/WHEELING	IL	R	L	26,864,495	26,864,495	5
05375. A	IND	INDIANAPOLIS INTERNATIONAL	INDIANAPOLIS	IN	P	M	26,461,894	31,322,527	10
00754. A	PHX	PHOENIX SKY HARBOR INTERNATIONAL	PHOENIX	AZ	P	L	26,296,693	51,667,688	8
26395. A	SEA	SEATTLE-TACOMA INTERNATIONAL	SEATTLE	WA	P	L	23,803,431	38,275,014	12
17746. A	CLE	CLEVELAND - HOPKINS INTERNATIONAL	CLEVELAND	OH	P	M	23,739,814	30,258,687	15
08456. A	BWI	BALTIMORE-WASHINGTON INTERNATIONAL	BALTIMORE	MD	P	M	23,280,762	30,625,718	8
13083. A	LAS	MC CARRAN INTERNATIONAL	LAS VEGAS	NV	P	L	21,999,063	37,498,314	8
21252. A	PIT	GREATER PITTSBURGH INTERNATIONAL	PITTSBURGH	PA	P	L	21,856,250	39,485,452	6
24071.1 A	IAH	HOUSTON INTERCONTINENTAL	HOUSTON	TX	P	M	21,828,536	33,412,595	4
07090. A	CVG	GREATER CINCINNATI INTERNATIONAL	COVINGTON	KY	P	M	20,752,584	30,626,589	8
23372. A	AUSN	NEW	AUSTIN	TX	P	L	20,000,000	20,000,000	1
13082. A	VGT	NORTH LAS VEGAS AIR TERMINAL	LAS VEGAS	NV	FR	L	18,061,032	18,361,032	3
03333. A	MIA	MIAMI INTERNATIONAL	MIAMI	FL	P	L	17,666,558	26,846,337	7
15793. A	JFK	JOHN F KENNEDY INTERNATIONAL	NEW YORK	NY	P	L	16,951,864	29,731,497	11
04508. A	ORD	CHICAGO O'HARE INTERNATIONAL	CHICAGO	IL	P	M	16,760,986	31,805,211	13
03192. A	FLL	FORT LAUDERDALE-HOLLYWOOD INTERNATIONAL	FORT LAUDERDALE	FL	P	M	15,816,519	22,726,675	10
23097. A	MEM	MEMPHIS INTERNATIONAL	MEMPHIS	TN	P	L	15,666,378	34,260,949	6
23710.6 A	DFW	DALLAS/FORT WORTH INTERNATIONAL	DALLAS/FORT WORTH	TX	P	L	14,648,947	21,801,004	5
03869.2 A	I7A	GWINNETT COUNTY-BRISCOE FIELD	LAWRENCEVILLE	GA	R	L	14,421,019	14,421,019	7
08778. A	BOS	GENERAL EDWARD L LOGAN INTERNATIONAL	BOSTON	MA	P	L	13,986,166	31,403,736	5
25289. A	SLC	SALT LAKE CITY INTERNATIONAL	SALT LAKE CITY	UT	P	L	13,543,113	18,052,491	11
01056. A	LIT	ADAMS FIELD	LITTLE ROCK	AR	P	S	13,290,217	18,461,261	9
17788. A	CMH	PORT COLUMBUS INTERNATIONAL	COLUMBUS	OH	P	M	12,317,773	18,976,041	4
03555. A	PBI	PALM BEACH INTERNATIONAL	WEST PALM BEACH	FL	P	M	12,131,290	15,029,710	7
01818. A	LAX	LOS ANGELES INTERNATIONAL	LOS ANGELES	CA	P	L	12,130,000	26,529,580	7
14904. A	BGM	LINK FIELD-BROOME COUNTY	BINGHAMTON	NY	P	M	12,056,582	14,108,848	4
14532. A	ABQ	ALBUQUERQUE INTERNATIONAL	ALBUQUERQUE	NM	P	L	11,427,291	28,754,983	4
02230. A	SNA	JOHN WAYNE/ORANGE COUNTY	SANTA ANA	CA	P	S	11,622,408	14,138,138	4
06975.4 A	ICT	WICHITA MID-CONTINENT	WICHITA	KS	P	M	11,571,285	13,853,374	3
19136. A	OKC	WILL ROGERS WORLD	OKLAHOMA CITY	OK	P	M	11,430,568	18,013,918	8
02204. A	SJC	SAN JOSE INTERNATIONAL	SAN JOSE	CA	P	M	11,398,660	12,958,631	5
21217. A	PHL	PHILADELPHIA INTERNATIONAL	PHILADELPHIA	PA	P	M	10,900,000	11,965,161	3
00448. A	P10	CHANDLER MUNICIPAL	CHANDLER	AZ	P	S	10,786,808	10,786,808	5
05282. A	FWA	FORT WAYNE MUNICIPAL/BAER FIELD	FORT WAYNE	IN	P	S	10,771,150	16,067,482	6
14052. A	EWR	NEWARK INTERNATIONAL	NEWARK	NJ	P	L	9,717,941	20,239,605	10
23895.11 A		SOUTH FORT WORTH (NEW)	FORT WORTH	TX	R	I	9,629,156	9,629,156	5
01353. A	BUR	BURBANK-GLENDALE-PASADENA	BURBANK	CA	P	M	9,293,562	18,229,177	3

18705. A	LHM	LOST NATION	WILLOUGHBY	OH	R	L	9,169,667	9,169,667	4
21781. A	AVP	WILKES-BARRE/SCRANTON INTERNATIONAL	WILKES-BARRE/SCRANTON	PA	P	S	9,154,359	11,394,246	4
09750. A	YIP	WILLOW RUN	DETROIT	MI	R	L	9,100,136	9,929,162	6
03002. A	IAD	WASHINGTON DULLES INTERNATIONAL	WASHINGTON, D C	VA	P	I	8,944,502	10,509,288	3
14726.01 A		SIERRA BLANCA REGIONAL	RUIDOSO	NM	CS	N	8,714,889	8,714,889	4
01779.2 A	LVK	LIVERMORE MUNICIPAL	LIVERMORE	CA	R	L	8,683,826	8,683,826	6
01986. A	ONT	ONTARIO INTERNATIONAL	ONTARIO	CA	P	M	8,400,000	16,469,058	2
02124.2 A	SMF	SACRAMENTO METROPOLITAN	SACRAMENTO	CA	P	M	8,245,034	21,559,432	6
02187. A	SFO	SAN FRANCISCO INTERNATIONAL	SAN FRANCISCO	CA	P	I	8,126,424	8,126,424	12
00164. A	BHM	BIRMINGHAM MUNICIPAL	BIRMINGHAM	AL	P	S	8,124,661	13,313,762	4
11817. A	GVW	RICHARDS - GEBAUR	KANSAS CITY	MO	R	M	8,010,421	8,010,421	5
22209. A	CAE	COLUMBIA METROPOLITAN	COLUMBIA	SC	P	S	7,987,645	17,471,780	5
03849. A	BJC	JEFFERSON COUNTY	DENVER	CO	R	L	7,861,300	7,889,300	7
02103. A	L67	RIALTO MUNICIPAL (MIRO FIELD)	RIALTO	CA	R	M	7,855,193	7,855,193	5
03513.1 A	XIA	VANDENBERG	TAMPA	FL	R	L	7,791,676	7,803,676	10
55027. A	STT	CYRIL E KING	CHARLOTTE AMALIE	VI	P	S	7,472,732	16,439,586	4
15794. A	LGA	LAGUARDIA	NEW YORK	NY	P	I	7,437,633	9,729,693	9
26210. A	PAE	SNOHOMISH COUNTY/PAINE FIELD	EVERETT	WA	R	L	7,400,869	7,445,609	6
07425. A	BTR	BATON ROUGE METROPOLITAN, RYAN FIELD	BATON ROUGE	LA	P	S	7,372,834	9,383,052	6
14954. A	BUF	GREATER BUFFALO INTERNATIONAL	BUFFALO	NY	P	M	7,146,671	15,631,122	7
07243. A	SDF	STANDIFORD FIELD	LOUISVILLE	KY	P	M	7,120,318	8,556,826	5
03889. A	HUF	HULMAN REGIONAL	TERRE HAUTE	IN	P	N	7,092,133	7,092,133	5
24272. A	TKI	MC KINNEY MUNICIPAL	MC KINNEY	TX	R	L	7,075,000	7,075,000	4
09749. A	DTW	DETROIT METROPOLITAN-WAYNE COUNTY	DETROIT	MI	P	L	6,980,308	15,795,758	7
22776. A	RAP	RAPID CITY REGIONAL	RAPID CITY	SD	P	S	6,617,745	8,975,853	7
27286.1 A	ENW	KENOSHA MUNICIPAL	KENOSHA	WI	R	M	6,209,640	6,209,640	4
10974. A	STP	ST PAUL DOWNTOWN HOLMAN FIELD	ST PAUL	MN	R	L	6,126,755	6,126,755	3
01437. A	CCR	BUCHANAN FIELD	CONCORD	CA	P	N	6,014,880	6,335,880	5
14349. A	TEB	TETERBORO	TETERBORO	NJ	R	L	5,966,876	6,165,593	4
07475. A	MSY	NEW ORLEANS INTERNATIONAL/MOISANT FIELD	NEW ORLEANS	LA	P	M	5,800,000	9,294,714	2
21682. A	3G2	WASHINGTON COUNTY	WASHINGTON	PA	R	L	5,788,353	5,812,000	6
12854. A	OMA	EPPLEY AIRFIELD	OMAHA	NE	P	M	5,566,643	9,676,602	4
52161. A	HNL	HONOLULU INTERNATIONAL	HONOLULU	HI	P	L	5,470,350	8,810,863	4
08389. A	WVL	WATERVILLE-ROBERT LAFLEUR	WATERVILLE	ME	CS	N	5,387,790	5,387,790	4
17035. A	RDU	RALEIGH-DURHAM	RALEIGH	NC	P	M	5,381,356	9,318,094	3
11816. A	MKC	DOWNTOWN	KANSAS CITY	MO	R	M	5,361,013	5,361,013	6
04507. A	MDW	CHICAGO MIDWAY	CHICAGO	IL	P	S	5,303,000	25,625,967	4
11861.6 A	K84	MCCOMAS-LEE'S SUMMIT MUNICIPAL	LEE'S SUMMIT	MO	R	M	5,192,181	5,192,181	2
03513. A	TPA	TAMPA INTERNATIONAL	TAMPA	FL	P	I	5,190,827	16,423,051	5
02572. A	APA	CENTENNIAL	DENVER	CO	R	I	5,007,569	5,007,569	7
02253. A	SMO	SANTA MONICA	SANTA MONICA	CA	R	I	5,000,000	5,000,000	3
02575.1 A	IW1	FRONT RANGE	DENVER	CO	R	L	4,963,570	5,063,570	7
03540. A	VRB	VERO BEACH MUNICIPAL	VERO BEACH	FL	CS	N	4,866,811	4,866,811	8
05257. A	EVV	EVANSVILLE DRESS REGIONAL	EVANSVILLE	IN	P	S	4,800,000	6,401,800	3
19527. A	4S9	MULTNO	MULTNO	OR	R	M	4,684,514	4,932,395	3
01356.5 A	4G5	EAST CONTRA COSTA COUNTY	BYRON	CA	R	L	4,673,402	4,673,402	2
00556. A	FDK	FREDERICK MUNICIPAL	FREDERICK	MD	R	L	4,582,024	4,696,024	4
04878. A	SLN	SALINA MUNICIPAL	SALINA	KS	CS	N	4,567,143	4,567,143	7
15236. A	FRG	REPUBLIC	FARMINGDALE	NY	R	S	4,559,616	4,559,616	5

04868.	A	MLI	QUAD-CITY	MOLINE	IL	P	S	4,557,100	8,283,985	6
27513.	A	RAC	HORLICK-RACINE	RACINE	WI	RP	M	4,535,410	4,535,410	5
02017.	A	PSP	PALM SPRINGS REGIONAL	PALM SPRINGS	CA	P	S	4,429,214	5,771,219	3
04564.	A	DEC	DECATUR	DECATUR	IL	P	N	4,428,363	5,083,940	4
04462.	A	ORH	WORCESTER MUNICIPAL	WORCESTER	MA	P	N	4,348,932	4,348,932	6
04506.	A	ARR	AURORA MUNICIPAL	CHICAGO/AURORA	IL	R	L	4,316,052	4,316,052	4
04372.	A	ALN	CIVIC MEMORIAL	ALTON	IL	R	L	4,293,377	4,293,377	2
04974.	A	RFD	GREATER ROCKFORD	ROCKFORD	IL	CS	N	4,268,438	4,268,438	5
25847.1	A	W09	LEESBURG MUNICIPAL/GODFREY FIELD	LEESBURG	VA	R	L	4,259,281	4,259,281	6
17211.	A	ILM	NEW HANOVER COUNTY	WILMINGTON	NC	P	N	4,217,812	7,499,463	3
25986.	A	ROA	ROANOKE MUNICIPAL/WOODRUM	ROANOKE	VA	P	S	4,058,058	7,942,376	3
04773.1	A	IKK	GREATER KANKAKEE	KANKAKEE	IL	GA		4,018,614	4,118,614	2
26396.	A	BFI	BOEING FIELD/KING COUNTY INTERNATIONAL	SEATTLE	WA	R	L	3,960,075	4,183,510	5
03339.	A	OPF	OPA LOCKA	MIAMI	FL	R	L	3,959,300	3,959,300	6
02588.	A	EGE	EAGLE COUNTY	EAGLE	CO	GA		3,934,262	3,934,262	3
10824.	A	MSP	MINNEAPOLIS-ST PAUL INTERNATIONAL	MINNEAPOLIS	MN	P	L	3,905,393	5,874,960	4
27661.	A	UES	WAUKESHA COUNTY	WAUKESHA	WI	R	M	3,882,200	3,882,200	4
04508.6	A	DPA	DU PAGE COUNTY	CHICAGO/WEST CHICAGO	IL	R	L	3,875,709	3,875,709	6
02709.	A	PUB	PUEBLO MEMORIAL	PUEBLO	CO	P	N	3,863,043	3,863,043	4
01593.	A	FUL	FULLERTON MUNICIPAL	FULLERTON	CA	R	L	3,817,372	3,817,372	3
02631.	A	GUC	GUNNISON COUNTY	GUNNISON	CO	CS	N	3,666,050	3,666,050	3
05370.4	A	418	METROPOLITAN	INDIANAPOLIS	IN	R	M	3,625,839	3,625,839	7
13578.	A	CDW	ESSEX COUNTY	CALDWELL	NJ	R	L	3,610,169	5,650,838	4
12002.5	A	SUS	SPIRIT OF ST LOUIS	ST LOUIS	MO	R	L	3,571,127	3,571,127	4
276.3.1	A	ATW	OUTAGAMIE COUNTY	APPLETON	WI	P	N	3,550,604	5,121,448	5
00717.76	A		LAKE HAVASU CITY (NEW)	LAKE HAVASU CITY	AZ	CS	N	3,540,269	3,540,269	1
19541.	A	OTH	NORTH BEND MUNICIPAL	NORTH BEND	OR	CS	N	3,536,000	3,536,000	3
15800.	A	IAG	NIAGARA FALLS INTERNATIONAL	NIAGARA FALLS	NY	R	M	3,525,711	3,525,711	4
02543.	A	COS	COLORADO SPRINGS MUNICIPAL	COLORADO SPRINGS	CO	P	S	3,434,611	4,773,058	2
09011.	A	LWM	LAWRENCE MUNICIPAL	LAWRENCE	MA	R	L	3,426,943	3,585,317	6
00692.21	A	GEU	GLENDALE MUNICIPAL	GLENDALE	AZ	R	L	3,377,536	3,377,536	3
23046.	A	TYS	MC GHEE TYSON	KNOXVILLE	TN	P	S	3,360,588	15,255,649	3
05248.	A	EKM	ELKHART MUNICIPAL	ELKHART	IN	P	N	3,358,097	3,658,097	3
17521.	A	CAK	AKRON-CANTON REGIONAL	AKRON	OH	P	S	3,259,110	7,163,097	4
01118.	A	IMI	NORTH LITTLE ROCK MUNICIPAL	NORTH LITTLE ROCK	AR	R	S	3,257,607	3,257,607	3
50153.	A	DLG	DILLINGHAM	DILLINGHAM	AK	CS	N	3,207,872	3,523,740	1
19283.	A	TUL	TULSA INTERNATIONAL	TULSA	OK	P	M	3,125,518	5,538,182	5
17818.	A	DAY	JAMES M COX DAYTON INTERNATIONAL	DAYTON	OH	P	M	3,104,000	3,104,000	1
05370.	A	511	GREENWOOD MUNICIPAL	INDIANAPOLIS	IN	R	M	3,088,741	3,088,741	6
05370.7	A	I52	INDIANAPOLIS TERRY	INDIANAPOLIS	IN	RP	M	3,085,380	3,085,380	3
23652.	A	CXO	MONTGOMERY COUNTY	CONROE	TX	R	L	3,076,216	3,076,216	5
05388.11	A	JVY	CLARK COUNTY	JEFFERSONVILLE	IN	R	M	3,053,780	3,053,780	5
09725.	A	DET	DETROIT CITY	DETROIT	MI	P	N	2,900,000	3,423,612	2
00640.5	A	P06	BULLHEAD CITY/LAUGHLIN	BULLHEAD CITY	AZ	CS	N	2,893,750	2,893,750	2
01391.	A	FAT	FRESNO AIR TERMINAL	FRESNO	CA	P	S	2,889,574	4,550,974	2
05126.	A	BMG	MONROE COUNTY	BLOOMINGTON	IN	CS	N	2,888,347	2,888,347	3
08995.	A	HYA	BARNSTABLE MUNICIPAL	HYANNIS	MA	P	N	2,871,446	4,462,739	3
24189.6	A	LNC	LANCASTER	LANCASTER	TX	R	L	2,852,735	2,852,735	2
50054.3	A	BRW	WILEY POST WILL ROGERS MEMORIAL	BARROW	AK	CS	N	2,821,944	3,137,812	1

06809. A	IXD	JOHNSON COUNTY INDUSTRIAL	OLATHE	KS	R	M	2,818,379	2,818,379	4
20420. A	FKL	CHESS-LAMBERTON	FRANKLIN	PA	CS	M	2,813,329	2,813,329	4
04938. A	PIA	GREATER PEORIA	PEORIA	IL	P	S	2,800,692	6,550,519	4
11379.01 A		JACKSON COUNTY (NEW)	PASCAGOULA	MS	GA		2,798,315	3,512,930	3
01398. A	CNO	CHINO	CHINO	CA	R	M	2,755,561	2,755,561	4
20094. A	40M	CHESTER COUNTY-G O CARLSON	COATESVILLE	PA	R	L	2,753,515	2,955,510	5
19673. A	ABE	ALLENTOWN-BETHLEHEM-EASTON	ALLENTOWN	PA	P	S	2,751,750	4,648,214	4
00438. A	MOB	BATES FIELD	MOBILE	AL	P	S	2,748,923	3,826,465	4
19122. A	OUN	UNIV OF OKLAHOMA WESTHEIMER AIRPARK	NORMAN	OK	R	M	2,731,041	2,731,041	5
00385.1 A	HSV	HUNTSVILLE INTL-CARL T JONES FIELD	HUNTSVILLE	AL	P	S	2,713,478	5,215,459	5
04141.01 A	U35	CALDWELL INDUSTRIAL	CALDWELL	ID	R	M	2,654,338	2,654,338	4
17731. A	LUK	CINCINNATI MUNICIPAL-LUNKEN FIELD	CINCINNATI	OH	R	M	2,644,350	2,644,350	4
50429. A	OTZ	RALPH WIEN MEMORIAL	KOTZEBUE	AK	CS	M	2,638,486	3,099,288	2
15784.4 H	JRB	DOWNTOWN MANHATTAN	DOWNTOWN MANHATTAN	NY	RH	L	2,605,000	2,809,500	2
09809. A	FNT	BISHOP	FLINT	MI	P	M	2,600,850	4,671,475	4
23122.1 A	JWN	JOHN C TUNE	NASHVILLE	TN	R	M	2,571,538	2,571,538	5
02260. A	STS	SONOMA COUNTY	SANTA ROSA	CA	CS	M	2,546,886	2,546,886	3
10104. A	D92	CUSTER-MONROE MUNICIPAL	MONROE	MI	R	L	2,538,800	2,538,800	4
25969.12 A		TAZEWELL COUNTY	RICHLANDS	VA	GA		2,529,986	2,922,000	3
11816.6 A	MCI	KANSAS CITY INTERNATIONAL	KANSAS CITY	MO	P	M	2,527,818	8,868,609	2
13123. A	RNO	RENO CANNON INTERNATIONAL	RENO	NV	P	M	2,511,621	6,002,880	1
21221. A	PHE	NORTHEAST PHILADELPHIA	PHILADELPHIA	PA	R	L	2,500,000	2,500,000	1
24758.5 A		SEALY REGIONAL (NEW)	SEALY	TX	R	L	2,500,000	2,500,000	2
27469. A	OSH	WITTMAN FIELD	OSHKOSH	WI	CS	M	2,483,803	2,767,735	4
03825.52 A	4A7	HENRY COUNTY-MORRIS FIELD	HAMPTON	GA	RP	L	2,441,171	2,515,005	4
08496. A	M32	HYDE FIELD	CLINTON	MD	RP	L	2,430,319	2,457,030	3
03744. A	9A1	COVINGTON MUNICIPAL	COVINGTON	GA	R	L	2,381,390	2,982,967	3
16608. A	CLT	CHARLOTTE/DOUGLAS INTERNATIONAL	CHARLOTTE	NC	P	L	2,360,603	8,596,342	3
20724. A	LBE	WESTMORELAND COUNTY	LATROBE	PA	R	S	2,359,600	2,359,600	2
09925. A	C19	TULIP CITY	HOLLAND	MI	GA		2,347,430	4,878,901	3
08645. A	SBY	SALISBURY WICOMICO COUNTY	SALISBURY	MD	P	M	2,345,174	2,449,292	2
24708. A	SSF	STINSON MUNICIPAL	SAN ANTONIO	TX	R	M	2,342,043	2,342,043	4
03250.1 A	JAX	JACKSONVILLE INTERNATIONAL	JACKSONVILLE	FL	P	M	2,337,915	7,275,822	4
16836. A	ISO	EASTERN REGIONAL JETPORT	KINSTON	NC	P	M	2,337,229	3,708,635	3
24988.16 A		WEATHERFORD MUNICIPAL (NEW)	WEATHERFORD	TX	R	L	2,300,000	2,300,000	1
18187.3 A	1G5	FREEDOM FIELD	MEDINA	OH	R	M	2,295,133	2,295,133	2
22505. A	29J	BRYANT FIELD	ROCK HILL	SC	R	L	2,294,077	2,294,077	4
00814. A	TUS	TUCSON INTERNATIONAL	TUCSON	AZ	P	M	2,250,000	7,126,605	3
26219.4 A	S19	FRIDAY HARBOR	FRIDAY HARBOR	WA	CS	M	2,246,345	2,246,345	2
50801. A	DUT	UNALASKA	UNALASKA	AK	CS	M	2,245,533	2,645,313	1
50035. A	MRI	MERRILL FIELD	ANCHORAGE	AK	GA		2,228,677	8,760,637	3
03283. A	LAL	LAKELAND MUNICIPAL	LAKELAND	FL	R	L	2,221,244	2,232,731	5
02112. A	RAL	RIVERSIDE MUNICIPAL	RIVERSIDE	CA	R	M	2,213,864	2,213,864	4
01651. A	HWD	HAYWARD AIR TERMINAL	HAYWARD	CA	R	L	2,198,003	2,198,003	4
09746. A	2G5	GROSSE ILE MUNICIPAL	DETROIT/GROSSE ILE	MI	R	L	2,190,000	2,190,000	2
02078.51 A		FRENCH VALLEY	RANCHO	CA	GA		2,182,079	3,000,000	2
18411. A	PCW	CARL R KELLER FIELD	PORT CLINTON	OH	CS	M	2,141,057	2,141,057	2
03709.1 A	6A0	CARTERSVILLE	CARTERSVILLE	GA	R	L	2,113,221	2,164,849	3
27388. A	MKE	GENERAL MITCHELL INTERNATIONAL	MILWAUKEE	WI	P	M	2,112,500	2,112,500	2

10299. A	MBS	TRI-CITY INTERNATIONAL	SAGINAW	MI	P	S	2,104,707	3,376,204	3
50219. A	FAI	FAIRBANKS INTERNATIONAL	FAIRBANKS	AK	P	S	2,063,777	5,086,028	2
07676. A	NEW	LAKEFRONT	NEW ORLEANS	LA	R	M	2,046,855	2,046,855	1
20502. A	CXY	CAPITAL CITY	HARRISBURG	PA	R	S	2,020,000	2,020,000	4
05511. A	MIE	DELAWARE COUNTY	MUNCIE	IN	CS	M	2,007,683	2,007,683	2
19434. A	EUG	MAHLON SWEET FIELD	EUGENE	OR	P	S	2,000,000	2,855,205	2
04503. A	UGN	WAUKEGAN REGIONAL	CHICAGO/WAUKEGAN	IL	R	L	1,990,050	1,990,050	3
08525. A	ESN	EASTON MUNICIPAL	EASTON	MD	GA		1,988,831	2,101,033	2
50017		STATE OF ILLINOIS		IL			1,984,282	1,984,282	5
16926.2 A	FQY	MONROE	MONROE	NC	GA		1,963,479	2,395,045	4
12138. A	SGF	SPRINGFIELD REGIONAL	SPRINGFIELD	MO	P	S	1,963,009	4,918,453	5
04518. A	JHA	LANSING MUNICIPAL	CHICAGO	IL	R	L	1,950,300	1,950,300	3
08559. A	GAI	MONTGOMERY CO AIRPARK	GAITHERSBURG	MD	R	L	1,948,948	2,072,229	1
20700. A	LNS	LANCASTER	LANCASTER	PA	P	N	1,946,003	3,712,112	3
26109. A	BLI	BELLINGHAM INTERNATIONAL	BELLINGHAM	WA	CS	N	1,917,879	1,921,950	5
25883.32 A	W66	WARRENTON-FAUQUIER	WARRENTON	VA	R	L	1,904,400	1,904,400	1
07233. A	LEX	BLUE GRASS	LEXINGTON	KY	P	S	1,903,952	5,385,747	5
14733.8 A	ST6	SANTA TERESA	SANTA TERESA	NM	R	M	1,900,330	1,900,330	3
13124. A	4SD	RENO/STEAD	RENO	NV	P	M	1,890,000	1,890,000	2
51510. A	NGM	GUAM INTERNATIONAL AIR TERMINAL	AGANA	GU	P	S	1,870,002	2,130,814	1
01647. A	HHR	HAWTHORNE MUNICIPAL	HAWTHORNE	CA	GA		1,865,901	1,865,901	4
07751.11 A		VICKSBURG-TALLULAH REGIONAL (NEW)	TALLULAH	LA	GA		1,840,808	2,000,000	1
00751.4 A	DVT	PHOENIX-DEER VALLEY	PHOENIX	AZ	R	L	1,837,619	1,837,619	2
23635. A	CLL	EASTERWOOD FIELD	COLLEGE STATION	TX	P	M	1,819,672	2,472,488	3
01857. A	MMH	MAMMOTH LAKES	MAMMOTH LAKES	CA	CS	N	1,810,609	1,810,609	5
06519. A	CNU	CHANUTE MARTIN JOHNSON	CHANUTE	KS	GA		1,806,638	2,081,788	2
04976. A	JBM	COLONEL JAMES JABARA	WICHITA	KS	R	M	1,805,115	1,805,115	2
06557. A	DDC	DODGE CITY REGIONAL	DODGE CITY	KS	CS	N	1,793,782	1,793,782	3
03408. A	ORL	ORLANDO EXECUTIVE	ORLANDO	FL	R	L	1,791,157	1,980,051	4
24071. A	HOU	WILLIAM P HOBBY	HOUSTON	TX	P	M	1,790,000	2,760,754	2
19538. A	ONP	NEWPORT MUNICIPAL	NEWPORT	OR	GA		1,789,767	1,866,677	4
15836. A	OIC	LT WARREN EATON	NORWICH	NY	GA		1,777,471	1,777,471	2
01104.4 A	2M9	BAXTER COUNTY REGIONAL	MOUNTAIN HOME	AR	GA		1,776,211	1,776,211	3
27813. A	JAC	JACKSON HOLE	JACKSON	WY	P	N	1,773,212	2,765,490	3
13312. A	LCI	LACONIA MUNICIPAL	LACONIA	NH	CS	N	1,772,895	1,772,895	4
27759. A	CYS	CHEYENNE	CHEYENNE	WY	P	N	1,765,613	2,159,027	3
06221.1 A	TNU	NEWTON MUNICIPAL	NEWTON	IA	GA		1,764,900	1,764,900	1
15481. A	ISP	LONG ISLAND - MAC ARTHUR	ISLIP	NY	P	N	1,750,001	3,523,858	1
14034. A	ROC	ROCHESTER MONROE COUNTY	ROCHESTER	NY	P	M	1,727,570	6,594,185	2
01772. A	0S1	LINCOLN MUNICIPAL	LINCOLN	CA	R	M	1,718,745	1,718,745	2
22024. A	PVD	THEODORE F GREEN STATE	PROVIDENCE	RI	P	S	1,718,694	3,268,929	2
17787. A	OSU	OHIO STATE UNIVERSITY	COLUMBUS	OH	R	M	1,711,354	1,711,354	4
50703. A	SIT	SITKA	SITKA	AK	P	N	1,697,813	1,697,813	1
01933. A	APC	NAPA COUNTY	NAPA	CA	R	L	1,692,658	1,692,658	3
06794. A	EWK	NEWTON-CITY-COUNTY	NEWTON	KS	R	M	1,658,311	1,658,311	2
06650.1 A	HYS	HAYS MUNICIPAL	HAYS	KS	CS	N	1,647,781	1,647,781	3
03194. A	FXE	FORT LAUDERDALE EXECUTIVE	FORT LAUDERDALE	FL	R	L	1,647,307	1,647,307	4
25867.1 A	W10	MANASSAS MUNICIPAL/DAVIS FIELD	MANASSAS	VA	R	L	1,640,212	1,640,212	4
13350. A	ASH	BOIRE FIELD	NASHUA	NH	R	L	1,637,953	1,684,422	6
08762. A	BVY	BEVERLY MUNICIPAL	BEVERLY	MA	R	L	1,627,932	1,637,232	5

08750. A	BED	LAURENCE G HANSCOM FIELD	BEDFORD	MA	R	L	1,606,909	1,606,909	3
24427. A	E02	ODESSA-SCHLEMEYER FIELD	ODESSA	TX	R	S	1,601,422	1,601,422	1
01156. A	ROG	CARTER FIELD-ROGERS MUNICIPAL	ROGERS	AR	GA		1,600,415	1,600,415	1
80012		FLORIDA AVIATION SYSTEM		FL			1,600,000	1,600,000	1
04976. A	LOT	LEWIS UNIVERSITY	ROMEOVILLE	IL	R	L	1,592,000	1,592,000	1
08452. A	MTN	MARTIN STATE	BALTIMORE	MD	R	M	1,590,133	2,021,067	3
11368.6 A	OLV	OLIVE BRANCH	OLIVE BRANCH	[illegible]	R	L	1,588,831	1,592,982	2
19801. A	BVI	BEAVER COUNTY	BEAVER	PA	R	L	1,557,390	1,576,400	3
21293. A	N46	POTTSTOWN LIMERICK	POTTSTOWN	PA	R	L	1,557,060	1,557,060	3
23925.1 H		GARLAND HELIPORT (NEW)	GARLAND	TX	RH	L	1,544,100	1,544,100	2
03643. A	PDK	DE KALB-PEACHTREE	ATLANTA	GA	R	L	1,534,317	1,545,386	3
10232. A	PTK	OAKLAND-PONTIAC	PONTIAC	MI	R	L	1,531,000	1,531,050	4
04494. A	CMI	UNIVERSITY OF ILLINOIS-WILLARD	CHAMPAIGN/URBANA	IL	P	M	1,507,471	3,815,478	3
20920. A	MDT	HARRISBURG INTERNATIONAL	MIDDLETOWN	PA	P	S	1,506,463	3,241,726	2
03481. A	SFB	SANFORD REGIONAL	SANFORD	FL	R	L	1,492,221	1,492,221	6
15866.11 A	N66	ONEONTA MUNICIPAL	ONEONTA	NY	CS	N	1,478,953	1,478,953	2
24163. A	ILE	KILLEEN MUNICIPAL	KILLEEN	TX	CS	N	1,478,550	1,478,550	3
22603. A	ABR	ABERDEEN REGIONAL	ABERDEEN	SD	CS	N	1,465,432	1,501,094	3
23272.1 A	3R3	AUSTIN EXECUTIVE AIRPARK	AUSTIN	TX	RP	M	1,456,210	1,456,210	1
10653. A	DLH	DULUTH INTERNATIONAL	DULUTH	MN	P	N	1,445,195	2,222,266	2
22577.01 A	FDW	FAIRFIELD COUNTY	WINNSBORO	SC	GA		1,443,541	1,443,541	2
02413. A	VIS	VISALIA MUNICIPAL	VISALIA	CA	CS	N	1,430,934	1,430,934	3
10235.1 A	PHN	ST CLAIR COUNTY INTERNATIONAL	PORT HURON	MI	GA		1,411,092	1,411,092	1
19905. A	BFD	BRADFORD REGIONAL	BRADFORD	PA	CS	N	1,403,500	1,403,500	2
14460. A	WWD	CAPE MAY COUNTY	WILDWOOD	NJ	CS	N	1,401,187	1,401,187	2
11135.1 A	OM6	PANOLA COUNTY	BATESVILLE	MS	GA		1,400,000	1,549,643	1
19279.1 A	RVS	RICHARD LLOYD JONES, JR.	TULSA	OK	R	M	1,397,816	1,397,816	2
24346.5 A	F42	PHIL L HUDSON MUNICIPAL	MESQUITE	TX	R	L	1,397,631	1,397,631	4
23324. A	TDW	TRADEWIND	AMARILLO	TX	RP	S	1,393,665	1,393,665	2
05008. A	SPI	CAPITAL	SPRINGFIELD	IL	P	S	1,383,817	2,984,093	4
02586.1 A	DRO	DURANGO-LA PLATA COUNTY	DURANGO	CO	P	N	1,379,183	2,555,178	3
80048		STATE OF TEXAS		TX			1,376,783	1,376,783	6
23023. A	NKL	NC KELLAR FIELD	JACKSON	TN	CS	N	1,375,321	1,375,321	3
08569. A	HGR	HAGERSTOWN REGIONAL	HAGERSTOWN	MD	CS	N	1,361,173	1,361,173	3
24067.3 A	EFD	ELLINGTON FIELD	HOUSTON	TX	R	M	1,356,500	1,356,500	1
04858.1 A	MTO	COLES COUNTY MEMORIAL	MATTOON-CHARLESTON	IL	CS	N	1,353,762	1,353,762	3
00696.71 A	GYR	PHOENIX-GOODYEAR MUNICIPAL	GOODYEAR	AZ	R	M	1,347,278	1,347,278	2
ME401		SIX SOUTHERN CALIFORNIA COUNTIES		CA			1,346,357	1,346,357	7
02802. A	DXR	DANBURY MUNICIPAL	DANBURY	CT	R	M	1,346,152	2,123,704	5
03954. A	2A9	FALCON FIELD	PEACHTREE CITY	GA	R	L	1,338,832	1,338,832	2
01188. A	TXK	TEXARKANA REGIONAL-WEBB FIELD	TEXARKANA	AR	P	N	1,330,161	1,637,645	5
02001. A	OXR	OXNARD	OXNARD	CA	CS	N	1,326,200	1,326,200	2
22328.51 A	49J	HILTON HEAD	HILTON HEAD ISLAND	SC	P	N	1,312,517	1,915,517	2
15957. A	PLB	CLINTON COUNTY	PLATTSBURGH	NY	CS	N	1,312,039	1,312,039	3
01291. A	BFL	MEADOWS FIELD	BAKERSFIELD	CA	P	N	1,310,722	1,900,010	2
04177. A	COE	COEUR D'ALENE AIR TERMINAL	COEUR D'ALENE	ID	CS	N	1,300,869	1,300,869	3
15752. A	SWF	STEWART INTERNATIONAL	NEWBURGH	NY	GA		1,271,750	2,642,454	3
24012. A	HRL	RIO GRANDE VALLEY INTERNATIONAL	HARLINGEN	TX	P	S	1,260,415	4,748,900	5
15851. A	OGS	OGDENSBURG INTERNATIONAL	OGDENSBURG	NY	CS	N	1,259,461	1,259,461	3

03728. A	CBG	COLUMBUS METROPOLITAN	COLUMBUS	GA	F	N	1,257,522	2,470,243	2
13911. A	9G7	LINCOLN PARK	LINCOLN PARK	NJ	RP	L	1,253,051	1,253,051	1
14741.05 A	SKX	TAOS MUNICIPAL	TAOS	NM	GA		1,250,079	1,250,079	1
02692. A	MTJ	MONTROSE COUNTY	MONTROSE	CO	CS	N	1,237,377	1,237,377	2
02213.4 A	999	SOUTH COUNTY ARPT OF SANTA CLARA COUNTY	SAN MARTIN	CA	R	M	1,215,000	1,215,000	1
27234. A	GRB	AUSTIN STRAUBEL FIELD	GREEN BAY	WI	P	S	1,211,752	3,103,559	2
06685. A	HUT	HUTCHINSON MUNICIPAL	HUTCHINSON	KS	CS	N	1,203,700	1,203,700	1
03394. A	OCF	OCALA MUNICIPAL/JIM TAYLOR FIELD	OCALA	FL	CS	N	1,198,674	1,210,416	3
27876. A	RIW	RIVERTON REGIONAL	RIVERTON	WY	CS	N	1,194,439	1,194,439	3
24971. A	VCT	VICTORIA REGIONAL	VICTORIA	TX	CS	N	1,192,631	1,192,631	2
01206.2 A	AWM	WEST MEMPHIS MUNICIPAL	WEST MEMPHIS	AR	R	M	1,183,500	1,183,500	2
22000. A	BFZ	NORTH CENTRAL STATE	PAWTUCKET	RI	R	M	1,177,121	1,468,299	3
08656.2 A	W29	BAY BRIDGE INDUSTRIAL	STEVENSVILLE	MD	GA		1,170,390	1,170,390	1
05370.3 A	114	EAGLE CREEK AIRPARK	INDIANAPOLIS	IN	R	M	1,162,583	1,162,583	3
24895. A	TPL	BRAUGHON-MILLER MUNICIPAL	TEMPLE	TX	CS	N	1,159,537	1,159,537	4
19571. A	PDX	PORTLAND INTERNATIONAL	PORTLAND	OR	P	M	1,155,306	9,569,619	4
05884. A	CID	CEDAR RAPIDS MUNICIPAL	CEDAR RAPIDS	IA	P	S	1,145,090	3,228,089	1
03532. A	TIX	SPACE CENTER EXECUTIVE	TITUSVILLE	FL	R	M	1,143,826	1,143,826	3
14366. A	TTN	MERCER COUNTY	TRENTON	NJ	CS	N	1,139,830	1,139,830	3
04458.8 A	CPS	CAHOKIA/ST LOUIS	EAST ST LOUIS	IL	R	L	1,138,327	1,138,327	1
03060. A	BCT	BOCA RATON	BOCA RATON	FL	R	M	1,136,279	1,136,279	3
17496.1 A	ISM	KISSIMMEE FIELD INTERNATIONAL	KISSIMMEE	FL	R	M	1,133,445	1,133,445	4
19570.5 H		PORTLAND PUBLIC HELIPORT	PORTLAND	OR	GAH		1,131,836	1,148,233	2
00763. A	PRC	ERNEST A LOVE FIELD	PRESCOTT	AZ	CS	N	1,119,688	1,119,688	3
19580. A	RDM	ROBERTS FIELD	REDMOND	OR	CS	N	1,099,458	1,099,458	3
17367. A	JMS	JAMESTOWN MUNICIPAL	JAMESTOWN	ND	CS	N	1,099,075	1,099,075	3
16723. A	FAY	FAYETTEVILLE REGIONAL/GRANNIS FIELD	FAYETTEVILLE	NC	P	S	1,097,089	2,149,379	3
10576. A	BRD	BRAINERD-CROW WING COUNTY	BRAINERD	MN	CS	N	1,082,843	1,082,843	2
80018		STATE OF INDIANA		IN	GA		1,076,277	1,076,277	4
11498.1 A		NEW	YAZOO CITY	MS	GA		1,066,054	1,258,659	2
03455. A	PGD	CHARLOTTE COUNTY	PUNTA GORDA	FL	CS	N	1,063,000	1,063,000	1
14636. A	LRU	LAS CRUCES INTERNATIONAL	LAS CRUCES	NM	CS	N	1,050,000	1,050,000	1
09962. A	IMT	FORD	IRON MOUNTAIN/KINGSFORD	MI	CS	N	1,048,392	1,048,392	3
13201. A	BML	BERLIN MUNICIPAL	BERLIN	NH	GA		1,040,089	1,040,089	1
27754. A	CPR	NATRONA COUNTY INTERNATIONAL	CASPER	WY	P	N	1,039,667	1,488,214	4
12453. A	MSO	MISSOULA INTERNATIONAL	MISSOULA	MT	P	N	1,034,833	2,563,508	4
04562.1 A	DNV	VERMILION COUNTY	DANVILLE	IL	CS	N	1,033,706	1,033,706	2
19514. A	MFR	MEDFORD-JACKSON COUNTY	MEDFORD	OR	P	N	1,031,501	1,811,904	3
19241. A	SWO	STILLWATER MUNICIPAL	STILLWATER	OK	GA		1,021,139	1,193,259	2
03475. A	PIE	ST PETERSBURG-CLEARWATER INTERNATIONAL	ST PETERSBURG	FL	P	S	1,021,053	3,270,935	3
01896. A	MOD	MODESTO CITY-COUNTY ARPT-HARRY SHAM FLD	MODESTO	CA	P	N	1,014,803	1,014,803	
80001		STATE OF ALABAMA		AL			1,013,670	1,013,670	2
17349.1 A	GFK	GRAND FORKS INTERNATIONAL	GRAND FORKS	ND	P	N	1,012,467	1,027,600	2
11288.1 A	PIB	PINE BELT REGIONAL	LAUREL-HATTIESBURG	MS	CS	N	1,008,441	1,008,441	4
11921. A	H41	NEW	MEXICO	MO	GA		1,006,351	1,124,577	2
24732. A	T98	SAN MARCOS MUNICIPAL	SAN MARCOS	TX	GA		1,005,960	1,005,960	2
00788. A	SDL	SCOTTSDALE MUNICIPAL	SCOTTSDALE	AZ	CS	N	1,001,318	1,001,318	1
07386.8 A	147	RUSSELL COUNTY	RUSSELL SPRINGS	KY	GA		1,000,000	1,000,000	1
07722.2 A		ST JOHN PARISH (NEW)	RESERVE	LA	R	L	1,000,000	1,000,000	1

24899. A	TRL	TERRELL MUNICIPAL	TERRELL	TX	GA			1,000,000	1,000,000	1
26552.01 A		NEW	BUCKHANNON	WV	GA			997,707	1,814,476	
03298.72 A		NORTH PALM BEACH COUNTY (NEW)	JUPITER	FL	R	M		996,200	996,200	2
13395. A	6D1	SKYHAVEN	ROCHESTER	NH	GA			991,914	1,344,852	1
25725. A	DAN	DANVILLE REGIONAL	DANVILLE	VA	GA			988,000	988,000	2
25977. A	RIC	RICHMOND INTERNATIONAL (BYRD FIELD)	RICHMOND	VA	P	S		979,603	3,304,721	3
25233. A	OGD	OGDEN MUNICIPAL	OGDEN	UT	R	L	N	979,131	979,131	2
14578. A	CVN	CLOVIS MUNICIPAL	CLOVIS	NM	CS			974,073	974,073	4
24400. A	OCH	A L MANGHAM JR REGIONAL	NACOGDOCHES	TX	GA			973,395	2,481,600	3
00900. A	ELD	GOODWIN FIELD	EL DORADO	AR	CS	W		968,500	968,500	1
21730. A	M99	BRANDYWINE	WEST CHESTER	PA	RP	L		965,512	1,136,520	4
22702. A	HON	HURON REGIONAL	HURON	SD	CS	W		954,000	954,000	2
12286 A	BTM	BERT MOONEY	BUTTE	MT	CS	W		952,919	1,204,451	3
27272. A	JVL	ROCK COUNTY	JANESVILLE	WI	CS	W		952,500	952,500	2
24239. A	GGG	GREGG COUNTY	LONGVIEW	TX	P	W		951,611	1,251,611	3
02654. A	LAA	LAMAR MUNICIPAL	LAMAR	CO	CS	W		950,321	950,321	3
03992. A	SAV	SAVANNAH INTERNATIONAL	SAVANNAH	GA	P	S		950,000	950,000	1
06932. A	FOE	FORBES FIELD	TOPEKA	KS	P	N		944,686	1,783,349	2
17320. A	FAR	HECTOR INTERNATIONAL	FARGO	ND	P	S		943,618	1,237,420	1
19685. A	ADO	ALTOONA-BLAIR COUNTY	ALTOONA	PA	CS	N		935,100	935,100	1
09788. A	ESC	DELTA COUNTY	ESCANABA	MI	CS	N		933,648	933,648	3
24190. A	T41	LA PORTE MUNICIPAL	LA PORTE	TX	R	L		933,570	933,570	2
02946. A	BDL	BRADLEY INTERNATIONAL	WINDSOR LOCKS	CT	P			925,500	4,068,125	2
50746. A	TAL	RALPH MCALHOUN MEMORIAL	TANANA	AK	CS	N		923,560	1,239,428	1
07682.2 A	LA31	ALLEN PARISH	OAKDALE	LA	GA			923,106	1,041,356	2
25526. A	RUT	RUTLAND STATE	RUTLAND	VT	CS	N		919,996	919,996	3
17063. A	45J	ROCKINGHAM-HAMLET	ROCKINGHAM	NC	GA			919,000	919,000	1
11814.6 A	A12	LEE C FINE MEMORIAL	KAISER/LAKE OZARK	MO	CS	N		910,832	910,832	3
11872.11 A		NEW	EXCELSIOR SPRINGS/LIBE	MO	R	N		909,762	909,762	1
04850. A	MWA	WILLIAMSON COUNTY REGIONAL	MARION	IL	CS	N		908,537	908,537	2
01683. A	IPL	IMPERIAL COUNTY	IMPERIAL	CA	CS	N		907,434	907,434	3
04234. A	LWS	LEWISTON-NEZ PERCE COUNTY	LEWISTON	ID	CS	N		905,292	905,292	3
26022.1 A	SHD	SHENANDOAH VALLEY REGIONAL	STAUNTON	VA	CS	N		904,565	904,565	4
25666. A	CHO	CHARLOTTESVILLE - ALBERMARLE	CHARLOTTESVILLE	VA	P	N		902,654	2,976,645	3
14010. A	MIV	MILLVILLE MUNICIPAL	MILLVILLE	NJ	GA			900,000	1,200,000	1
04413. A	BLV	SCOTT AIR FORCE BABE	BELLEVILLE	IL	R	L		900,000	900,000	1
24353. A	MAF	MIDLAND INTERNATIONAL	MIDLAND	TX	P	S		896,915	2,008,091	5
22822. A	ATY	WATERTOWN MUNICIPAL	WATERTOWN	SD	CS	N		896,490	896,490	3
20640. A	JST	JOHNSTOWN-CAMBRIA COUNTY	JOHNSTOWN	PA	CS	N		883,000	883,000	3
25863. A	LYH	LYNCHBURG MUNICIPAL PRESTON GLENN FIELD	LYNCHBURG	VA	P	N		878,757	1,773,005	2
04206. A	SUN	FRIEDMAN MEMORIAL	HAILEY	ID	CS	N		877,534	877,534	3
R0042		SOUTHWESTERN PENNSYLVANIA REGION		PA				876,150	876,150	4
50114. A	CDB	COLD BAY	COLD BAY	AK	CS	N		872,959	3,251,261	1
14728. A	SAF	SANTA FE COUNTY MUNICIPAL	SANTA FE	NM	CS	N		870,000	870,000	1
M7040		ST LOUIS METROPOLITAN AREA		MO			L	867,884	867,884	4
17756. A	CGF	CUYAHOGA COUNTY	CLEVELAND	OH	R			863,069	863,069	2
21979.1 A	2B4	NEWPORT STATE	NEWPORT	RI	GA			862,299	862,299	1
18262. A	21B	NEWARK-HEATH	NEWARK	OH	GA			861,250	861,250	2
20599. A	1D1	INDIANA COUNTY/JIMMY STEWART	INDIANA	PA	GA			859,004	1,109,004	2
50053		STATE OF WASHINGTON		WA				857,395	857,395	4

26190. A	S17	ORCAS ISLAND	EASTSOUND	WA	CS	N	856,108	856,108	2
16971. A	EWN	CRAVEN COUNTY REGIONAL	NEW BERN	NC	P	N	854,744	1,295,179	2
00716. A	IGM	MOHAVE COUNTY	KINGMAN	AZ	CS	N	854,006	854,006	2
12794. A	LNK	LINCOLN MUNICIPAL	LINCOLN	NE	P	N	852,167	2,425,050	2
18932. A	DUC	HALLIBURTON FIELD	DUNCAN	OK	GA		847,963	1,829,963	3
17069.1 A		PERSON COUNTY	ROXBORO	NC	R	M	842,067	903,054	3
14269. A	SYR	SYRACUSE-HANCOCK INTERNATIONAL	SYRACUSE	NY	P	M	840,000	2,592,500	2
24388.8 A	F53	FRANKLIN COUNTY	MOUNT VERNON	TX	GA		837,208	837,208	1
13027.11 A		MEW	BOULDER CITY	NV	GA		834,717	834,717	1
01971. A	OAK	METROPOLITAN OAKLAND INTERNATIONAL	OAKLAND	CA	P	M	826,275	826,275	2
05012.1 A	SQI	WHITESIDE COUNTY	STERLING ROCKFALLS	IL	CS	N	821,596	821,596	2
22844. A	YKN	CHAN GURNEY MUNICIPAL	YANKTON	SD	CS	N	816,231	816,231	4
11339. A	MEI	KEY FIELD	MERIDIAN	MS	CS	N	804,775	804,775	2
19137. A	PWA	WILEY POST	OKLAHOMA CITY	OK	R	M	803,740	803,740	2
27905. A	WRL	WORLAND MUNICIPAL	WORLAND	WY	CS	N	800,976	800,976	3
18579. A	TDZ	TOLEDO METCALFE	TOLEDO	OH	R	S	800,000	800,000	2
28830. A	HSP	INGALLS FIELD	HOT SPRINGS	VA	CS	N	793,002	793,002	2
00006		STATE OF CALIFORNIA		CA			785,500	785,500	4
MB843		WASHINGTON METROPOLITAN AREA		DC			781,700	781,700	4
22631. A	BKX	BROOKINGS MUNICIPAL	BROOKINGS	SD	CS	N	774,900	1,053,900	2
02309.7 A	TVL	LAKE TAHOE	SOUTH LAKE TAHOE	CA	P	N	774,393	2,268,752	1
03752. A	DNN	DALTON MUNICIPAL	DALTON	GA	GA		773,070	773,070	1
15491. A	JHW	CHAUTAUQUA COUNTY	JAMESTOWN	NY	CS	N	771,844	771,844	3
00818. A	RYN	RYAN FIELD	TUCSON	AZ	R	M	767,811	767,811	4
20893. A	2G6	PORT MEADVILLE	MEADVILLE	PA	GA		767,000	3,206,000	2
22466. A	CRE	GRAND STRAND	NORTH MYRTLE BEACH	SC	GA		764,448	1,297,038	2
14528.1 A	N93	DOUBLE EAGLE II	ALBUQUERQUE	NM	R	M	763,000	763,000	1
25674.6 A	W98	CHESTERFIELD COUNTY	CHESTERFIELD	VA	R	M	762,401	780,851	3
50296. A	HNS	HAINES	HAINES	AK	GA		761,522	761,522	2
26536. A	BLF	MERCER COUNTY	BLUEFIELD	WV	CS	N	757,161	757,161	3
03805. A	GVL	LEE GILMER MEMORIAL	GAINESVILLE	GA	R	L	753,584	753,584	1
03474. A	SPG	ALBERT WHITTED	ST PETERSBURG	FL	R	L	743,763	743,763	4
11280. A	JAN	ALLEN C THOMPSON FIELD	JACKSON	MS	P	S	742,761	2,665,835	3
00157.1 A	2A3	BESSEMER	BESSEMER	AL	R	S	735,186	735,186	1
10202. A	SD3	OWOSSO COMMUNITY	OWOSSO	MI	GA		732,000	732,000	1
50036		STATE OF NEW YORK		NY			731,107	731,107	4
25600. A	6A8	VIRGINIA HIGHLANDS	ABINGDON	VA	GA		730,141	731,490	2
16815.1 A	OAJ	ALBERT J ELLIS	JACKSONVILLE	NC	P	N	725,860	2,028,061	2
25856.42 A	68VA	LOUISA COUNTY	LOUISA	VA	GA		716,070	1,172,070	1
04667.1 A	GBG	GALESBURG MUNICIPAL	GALESBURG	IL	CS	N	714,422	714,422	2
00817.1 A	E14	AVRA VALLEY	TUCSON	AZ	GA		712,759	1,170,275	2
25385. A	BTV	BURLINGTON INTERNATIONAL	BURLINGTON	VT	P	S	711,484	2,967,960	3
14524. A	ALM	ALAMOGORDO-WHITE SANDS REGIONAL	ALAMOGORDO	NM	CS	N	705,776	705,776	2
14621. A	HOB	LEA COUNTY (HOBBS)	HOBBS	NM	CS	N	703,581	703,581	2
03682. A	SSI	MALCOLM MCKINNON	BRUNSWICK	GA	GA		703,402	703,402	2
20942. A	G08	ROSTRAVER	MONONGAHELA	PA	R	L	703,400	1,103,400	2
02510. A	ALS	SAN LUIS VALLEY REGIONAL/BERGMAN FIELD	ALAMOSA	CO	CS	N	696,294	696,294	2
14559. A	CNM	CAVERN CITY AIR TERMINAL	CARLSBAD	NM	CS	N	687,816	687,816	2
00221. A	PQI	NORTHERN MAINE REGIONAL	PRESQUE ISLE	ME	CS	N	684,000	684,000	2

17066. A	RWI	ROCKY MOUNT-WILSON	ROCKY MOUNT	NC	CS	N	683,937	683,937	3
25324. A	VEL	VERNAL	VERNAL	UT	CS	N	682,155	682,155	4
01369.1 A	CMA	CAMARILLO	CAMARILLO	CA	R	L	679,878	679,878	3
19967. A	BTP	BUTLER-GRAHAM	BUTLER	PA	R	L	677,820	677,820	2
12429.11 A	8S9	LIBBY	LIBBY	MT	GA		674,100	938,103	1
22741. A	MHE	MITCHELL MUNICIPAL	MITCHELL	SD	CS	N	669,725	669,725	3
80037		STATE OF NORTH CAROLINA		NC	GA		667,905	667,905	3
22884. A	TRI	TRI-CITY REGIONAL	BRISTOL	TN	P	N	666,086	3,097,273	3
01754.2 A	WJF	GENERAL WILLIAM J FOX FIELD	LANCASTER	CA	CS	N	665,300	665,300	2
03279. A	31J	LAKE CITY MUNICIPAL	LAKE CITY	FL	GA		663,802	735,413	1
M0520		ATLANTA METROPOLITAN AREA		GA	GA		660,216	660,216	7
26582. A	CKB	BENEDUM	CLARKSBURG	WV	CS	N	653,050	653,050	2
16179. A	1N1	BROOKHAVEN	SHIRLEY	NY	R	S	652,010	853,745	4
07594.1 A	LCH	LAKE CHARLES REGIONAL	LAKE CHARLES	LA	P	N	644,915	1,037,296	2
00674. A	FLG	PULLIAM	FLAGSTAFF	AZ	CS	N	641,475	641,475	2
16308. A	UCA	ONEIDA COUNTY	UTICA	NY	P	N	637,949	1,033,890	3
09112. A	EWB	NEW BEDFORD MUNICIPAL	NEW BEDFORD	MA	P	N	637,796	1,975,938	4
22276. A	FLO	FLORENCE REGIONAL	FLORENCE	SC	CS	N	634,960	634,960	2
18157. A	MFD	MANSFIELD LAHM MUNICIPAL	MANSFIELD	OH	CS	N	631,921	631,921	3
11651.1 A	COU	COLUMBIA REGIONAL	COLUMBIA	MO	P	N	630,310	876,537	2
RA006		DELAWARE VALLEY REGION		PA			625,000	625,000	3
16866. A	5N4	LINCOLN COUNTY	LINCOLNTON	NC	GA		624,842	777,162	1
26103.1 A	8S0	AUBURN MUNICIPAL	AUBURN	WA	R	L	622,921	647,221	2
23[illegible].22 A		BURNET MUNICIPAL/KATE CRADDOCK FIELD	BURNET	TX	GA		620,715	620,715	1
27739. A	GCC	GILLETTE-CAMPBELL COUNTY	GILLETTE	WY	CS	N	620,000	620,000	2
24620.1 A	SNK	WINSTON FIELD	SNYDER	TX	GA		620,000	620,000	1
20243.1 A	DUJ	DU BOIS-JEFFERSON COUNTY	DU BOIS	PA	CS	N	617,358	617,358	2
14118. A	SCH	SCHENECTADY COUNTY	SCHENECTADY	NY	R	M	613,748	1,526,205	2
80041		STATE OF OREGON		OR			613,556	613,556	4
24249. A	LFK	ANGELINA COUNTY	LUFKIN	TX	GA		609,111	1,465,301	2
80027		STATE OF MINNESOTA		MN			608,400	608,400	2
07678. A	LA30	FALSE RIVER AIR PARK	NEW ROADS	LA	R	S	607,258	607,258	2
00934. A	INW	WINSLOW MUNICIPAL AIRPORT	WINSLOW	AZ	CS	N	605,259	605,259	3
06382. A	BHU	SHELDON MUNICIPAL	SHELDON	IA	GA		603,221	603,221	1
14858. A	3G8	GENESEE COUNTY	BATAVIA	NY	R	M	602,640	602,640	2
00742.2 A	PGA	PAGE MUNICIPAL	PAGE	AZ	CS	N	602,508	602,508	3
17785.2 A	214	BOLTON FIELD	COLUMBUS	OH	R	M	600,000	600,000	1
80026		STATE OF MICHIGAN		MI			599,000	599,000	3
M7320		SAN DIEGO METROPOLITAN AREA		CA			597,470	597,470	2
15647. A	MSS	RICHARDS FIELD	MASSENA	NY	CS	N	596,000	596,000	3
02546.1 A	CEZ	CORTEZ-MONTEZUMA COUNTY	CORTEZ	CO	CS	N	593,225	593,225	3
12915. A	BFF	WILLIAM B HEILIG FIELD	SCOTTSBLUFF	NE	CS	N	582,746	582,746	3
27882. A	SHR	SHERIDAN COUNTY	SHERIDAN	WY	CS	N	581,037	581,037	1
01818.1 A	WHP	WHITEMAN	LOS ANGELES	CA	R	M	580,100	580,100	2
16144. A	0G7	SENECA FALLS	SENECA FALLS	NY	GA		577,543	577,543	3
05941.2 A	DVN	DAVENPORT MUNICIPAL	DAVENPORT	IA	R	S	577,400	577,400	2
13317. A	LEB	LEBANON MUNICIPAL	LEBANON	NH	CS	N	576,529	576,529	4
80055		STATE OF WISCONSIN		WI	GA		573,102	573,102	5
02574. A	DEN	STAPLETON INTERNATIONAL	DENVER	CO	P	L	572,917	9,052,412	2
25052.03 A		WINNIE/STOWELL	WINNIE	TX	GA		572,314	572,314	1

80045		STATE OF SOUTH CAROLINA		SC			571,868	571,868	3
12855.14 A	MLE	MILLARD	OMAHA	NE	R	M	569,700	569,700	1
27834. A	LAR	GENERAL BREES FIELD	LARAMIE	WY	CS	N	567,100	567,100	3
23337.22 A	LBX	BRAZORIA COUNTY	ANGLETON/LAKE JACKSON	TX	CS	N	564,895	573,756	2
27772.5 A	DGW	CONVERSE COUNTY	DOUGLAS	WY	GA		564,000	564,000	1
25936. A	PTB	PETERSBURG MUNICIPAL	PETERSBURG	VA	GA		563,218	734,762	2
25673.1 A	W36	CHESAPEAKE MUNICIPAL	CHESAPEAKE	VA	R	S	560,000	624,516	1
26520. A	BKW	RALEIGH COUNTY MEMORIAL	BECKLEY	WV	CS	N	558,189	558,189	1
80039		STATE OF OHIO		OH			557,835	557,835	3
04477. A	MDH	SOUTHERN ILLINOIS	CARBONDALE	IL	CS	N	554,400	554,400	2
05472. A	MGC	MICHIGAN CITY MUNICIPAL	MICHIGAN CITY	IN	GA		553,269	2,116,574	2
80025		STATE OF MASSACHUSETTS		MA			550,300	550,300	2
80051		COMMONWEALTH OF VIRGINIA		VA			549,172	549,172	4
17265. A	BIS	BISMARCK MUNICIPAL	BISMARCK	ND	P	S	544,500	544,500	1
27765. A	COD	YELLOWSTONE REGIONAL	CODY	WY	CS	N	541,967	541,967	3
27349. A	MTW	MANITOWOC COUNTY	MANITOWOC	WI	CS	N	540,000	540,000	1
02203. A	RHV	REID-HILLVIEW - SANTA CLARA COUNTY	SAN JOSE	CA	R	M	539,863	539,863	1
80038		STATE OF NORTH DAKOTA		ND	GA		539,041	539,041	4
04958. A	UIN	QUINCY MUNICIPAL-BALDWIN FIELD	QUINCY	IL	CS	N	538,018	538,018	1
13051. A	ELY	ELY ARPT / YELLAND FLD	ELY	NV	CS	N	537,913	537,913	1
22531. A	SPA	SPARTANBURG DOWNTOWN MEMORIAL	SPARTANBURG	SC	GA		537,055	691,974	1
00729. A	FFZ	FALCON FIELD	MESA	AZ	R	L	536,674	536,674	1
08975. A	FYV	DRAKE FIELD	FAYETTEVILLE	AR	P	N	534,732	1,217,231	5
21607. A	N57	THE NEW GARDEN FLYING FIELD	TOUGHKENAMON	PA	RP	L	526,396	730,300	2
14700. A		PORTALES MUNICIPAL	PORTALES	NM	GA		525,334	1,613,568	2
03639. A	FTY	FULTON COUNTY-BROWN FIELD	ATLANTA	GA	R	L	521,547	530,880	3
06164. A	MCW	MASON CITY MUNICIPAL	MASON CITY	IA	CS	N	520,502	520,502	3
26081. A	RNT	RENTON MUNICIPAL	RENTON	WA	R	L	518,400	518,400	2
18106.1 A	22G	LORAIN COUNTY REGIONAL	LORAIN/ELYRIA	OH	R	L	515,700	515,700	2
04821. A	BMI	BLOOMINGTON-NORMAL	BLOOMINGTON	IL	P	N	514,792	1,166,498	3
26075.3 A	LNP	LONESOME PINE	WISE	VA	GA		508,299	788,115	3
14709. A	ALB	ALBANY COUNTY	ALBANY	NY	P	S	508,000	1,108,000	1
05957. A	DBQ	DUBUQUE REGIONAL	DUBUQUE	IA	CS	N	501,340	501,340	2
04967.3 A	JK6	SHAFER-METRO EAST	TROY-ST. JACOB	IL	RP	L	500,000	500,000	1
05109. A	AMW	AMES MUNICIPAL	AMES	IA	GA		497,208	2,421,018	3
06426. A	GBD	GREAT BEND MUNICIPAL	GREAT BEND	KS	CS	N	496,081	496,081	2
19223. A	SNL	SHAWNEE MUNICIPAL	SHAWNEE	OK	GA		495,000	495,000	1
02385. A	CCB	CABLE	UPLAND	CA	RP	L	495,000	504,196	1
00788.3 A	SEZ	SEDONA	SEDONA	AZ	CS	N	494,911	494,911	2
50032. A	AKP	ANAKTUVUK PASS	ANAKTUVUK PASS	AK	GA		493,044	684,480	2
07308.1 A	OWB	OWENSBORO-DAVIESS COUNTY	OWENSBORO	KY	CS	N	491,205	491,205	3
10329. A	CIU	CHIPPEWA COUNTY INTERNATIONAL	SAULT STE. MARIE	MI	CS	N	486,734	486,734	3
50412.03 A	KTN	KETCHIKAN INTERNATIONAL	KETCHIKAN	AK	P	N	483,523	675,436	2
80042		COMMONWEALTH OF PENNSYLVANIA		PA			482,310	482,310	4
13091. A	MEV	DOUGLAS COUNTY	MINDEN	NV	GA		482,124	1,147,000	1
M2080		DENVER METROPOLITAN AREA		CO			480,898	480,898	5
10684. A	FRM	FAIRMONT MUNICIPAL	FAIRMONT	MN	CS	N	480,000	480,000	1
01757. A	POC	BRACKETT FIELD	LA VERNE	CA	R	M	477,000	477,000	1
17109. A	SOP	MOORE COUNTY	SOUTHERN PINES	NC	GA		474,563	936,623	4
10535. A	BDE	BAUDETTE INTERNATIONAL	BAUDETTE	MN	GA		473,400	473,400	1

13042. A	004	CARSON	CARSON CITY	NV	R	M	473.367	473.367	2
16761. A	PGV	PITT-GREENVILLE	GREENVILLE	NC	CS	N	470.338	470.338	4
19202.1 A	OF8	WILLIAM R POGUE MUNICIPAL	SAND SPRINGS	OK	R	M	470.070	470.070	1
01635.61 A	868	PINE MOUNTAIN LAKE	GROVELAND	CA	GA		469.070	469.070	1
52061. A	HHN	HANA	HANA	HI	CS	N	467.739	467.739	1
01886. A	MCE	MERCED MUNICIPAL/MACREADY FIELD	MERCED	CA	CS	N	464.967	464.967	2
50035		STATE OF NEW MEXICO		NM	GA		461.301	461.301	4
18796. A	1F0	ARDMORE DOWNTOWN EXECUTIVE	ARDMORE	OK	GA		460.258	467.280	1
03321. A	MLB	MELBOURNE REGIONAL	MELBOURNE	FL	P	S	459.957	1,799.784	3
04931. A	TOP	PHILIP BILLARD MUNICIPAL	TOPEKA	KS	GA		459.684	476.426	1
14031. A	MMU	MORRISTOWN MUNICIPAL	MORRISTOWN	NJ	R	L	459.142	1,939.954	5
01035. A	JBR	JONESBORO MUNICIPAL	JONESBORO	AR	CS	N	458.866	458.866	2
08215. A	PWM	PORTLAND INTERNATIONAL JETPORT	PORTLAND	ME	P	S	456.774	1,402.532	3
11605. A	CGI	CAPE GIRARDEAU MUNICIPAL	CAPE GIRARDEAU	MO	CS	N	456.611	456.611	1
12265. A	BIL	BILLINGS-LOGAN INTERNATIONAL	BILLINGS	MT	P	S	454.932	3,003.916	1
09977. A	JXN	JACKSON COUNTY REYNOLDS FIELD	JACKSON	MI	CS	N	454.763	454.763	1
07744.31 A	6R0	SLIDELL	SLIDELL	LA	R	L	450.000	450.000	1
19481. A	LMT	KINGSLEY FIELD	KLAMATH FALLS	OR	CS	N	449.792	449.792	1
08251. A	CRG	CRAIG MUNICIPAL	JACKSONVILLE	FL	R	M	448.274	448.274	2
14956. A	9G0	BUFFALO AIRPARK	BUFFALO	NY	R	M	447.195	447.195	1
10812.1 A	MKT	MANKATO MUNICIPAL	MANKATO	MN	CS	N	444.214	444.214	1
25269. A	PVU	PROVO MUNICIPAL	PROVO	UT	GA		444.195	864.195	2
MK851		SALT LAKE CITY METRO AREA		UT	GA		441.490	441.490	6
00712.8 A	0V7	MAYENTA	MAYENTA	AZ	GA		440.271	1,834.551	3
R3605		CENTRAL NEW YORK REGION		NY			438.534	438.534	7
27524. A	RHI	RHINELANDER-ONEIDA COUNTY	RHINELANDER	WI	CS	N	436.775	436.775	2
06022.11 A	K29	GRINNELL MUNICIPAL	GRINNELL	IA	GA		435.338	435.338	1
17[illegible]. A	D97	SOUTH ST PAUL MUNICIPAL	SOUTH ST PAUL	MN	R	L	432.000	432.000	1
03225.1 A	TMB	TAMIAMI	MIAMI	FL	R	L	431.000	431.000	2
24216.1 A	T78	LIBERTY MUNICIPAL	LIBERTY	TX	GA		422.191	1,172.191	1
09252. A	GRR	KENT COUNTY INTERNATIONAL	GRAND RAPIDS	MI	P	S	421.937	2,758.647	2
23363.1 A	F44	ATHENS MUNICIPAL	ATHENS	TX	GA		421.500	1,101.146	2
26245. A	PSC	TRI-CITIES	PASCO	WA	P	M	418.701	430.695	2
50024		STATE OF MARYLAND		MD			418.446	418.446	3
11462. A	TUP	TUPELO MUNICIPAL - C D LEMONS FIELD	TUPELO	MS	CS	N	415.799	415.799	2
50049		STATE OF UTAH		UT			413.784	413.784	4
04236. A	MYL	MCCALL	MCCALL	ID	GA		410.267	860.242	1
01914. A	MRY	MONTEREY PENINSULA	MONTEREY	CA	P	S	400.000	400.000	1
23934. A	T04	GEORGETOWN MUNICIPAL	GEORGETOWN	TX	GA		399.500	449.500	1
06739. A	LYO	LYONS-RICE COUNTY MUNICIPAL	LYONS	KS	GA		395.252	395.252	2
17059. A	RZZ	HALIFAX COUNTY	ROANOKE RAPIDS	NC	GA		394.338	394.338	1
08050. A	59B	NEWTON FIELD	JACKMAN	ME	GA		391.973	962.761	2
13048. A	EKO	ELKO MUNICIPAL - J C HARRIS FIELD	ELKO	NV	P	M	391.421	421.059	2
05370.5 A	M0J	MOUNT COMFORT	INDIANAPOLIS	IN	R	M	388.800	388.800	1
08275. A	SFM	SANFORD MUNICIPAL	SANFORD	ME	GA		385.190	635.190	2
25287. A	U42	SALT LAKE CITY MUNICIPAL NO 2	SALT LAKE CITY	UT	R	L	384.000	384.000	3
02211. A	SBP	SAN LUIS OBISPO COUNTY	SAN LUIS OBISPO	CA	P	M	383.750	891.875	2
50022		STATE OF LOUISIANA		LA	GA		382.289	382.289	3
22789. A	FSD	JOE FOSS FIELD	SIOUX FALLS	SD	P	S	379.904	626.892	1
19469. A		PORTLAND-HILLSBORO	PORTLAND	OR	R	M	379.095	379.095	2

93379. A	APF	NAPLES MUNICIPAL	NAPLES	FL	CS	N	378.758	578.488	1
12842. A	LBF	LEE BIRD FIELD	NORTH PLATTE	NE	CS	N	375.988	375.988	3
22539. A	SMS	SUMTER MUNICIPAL	SUMTER	SC	GA		372.990	465.413	1
12669.9 A	CBG	CAMBRIDGE MUNICIPAL	CAMBRIDGE	NE	GA		370.808	484.910	2
14758. A	GSO	PIEDMONT TRIAD INTERNATIONAL	GREENSBORO	NC	P	S	369.220	942.897	1
24542.2 A	T97	CALHOUN COUNTY	PORT LAVACA	TX	GA		365.000	630.947	1
23644. A	BCB	VIRGINIA POLYTECHNICAL INSTITUTE	BLACKSBURG	VA	GA		363.019	478.600	2
27406.31 A	CWA	CENTRAL WISCONSIN	MOSINEE	WI	P	N	361.848	1.556.382	1
RS301		CENTRAL PUGET SOUND REGION		WA			361.200	361.200	4
27366. A	MWC	LAWRENCE J TIMMERMAN	MILWAUKEE	WI	R	N	360.444	360.444	2
RB302		NORTH CENTRAL TEXAS COG		TX	GA		360.150	360.150	3
03120.1 A	COI	MERRITT ISLAND	COCOA	FL	GA		360.070	626.612	2
RS000		DADE COUNTY METROPOLITAN AREA		FL			360.000	360.000	1
10551.1 A	BBB	BENSON MUNICIPAL	BENSON	MN	GA		359.369	1.189.369	1
22102. A	AND	ANDERSON COUNTY	ANDERSON	SC	CS	N	359.182	359.182	2
08610. A	MRO	OCEAN CITY MUNICIPAL	OCEAN CITY	MD	CS	N	358.550	358.550	2
06487. A	RPB	BELLEVILLE MUNICIPAL	BELLEVILLE	KS	GA		357.309	495.156	1
02702.1 A	2V1	STEVENS FIELD	PAGOSA SPRINGS	CO	GA		356.634	2.425.472	3
23934.61 A		LIVE OAK COUNTY (NEW)	GEORGE WEST	TX	GA		355.235	899.849	1
12375. A	GGW	GLASGOW INTERNATIONAL	GLASGOW	MT	CS	N	351.419	351.419	1
23685.1 A	11R	BRENHAM MUNICIPAL	BRENHAM	TX	GA		350.755	700.755	2
06459.3 A	HLC	HILL CITY MUNICIPAL	HILL CITY	KS	GA		350.184	805.717	1
06811. A	OJC	JOHNSON COUNTY EXECUTIVE	OLATHE	KS	R	N	350.041	350.041	2
92095. A	ITO	GENERAL LYMAN FIELD	HILO	HI	P	S	350.000	350.000	1
92250.2 A	KOA	KE-AHOLE	KAILUA-KONA	HI	P	S	350.000	350.000	1
25001. A	T65	MID VALLEY	WESLACO	TX	GA		349.912	710.000	1
01136. A	SGT	STUTTGART MUNICIPAL	STUTTGART	AR	GA		349.732	350.000	1
13222. A	MHT	MANCHESTER MUNICIPAL	MANCHESTER	NH	P	N	349.056	1.806.583	2
00248.3 A	JAI	FOLSOM FIELD	CULLMAN	AL	GA		348.689	411.011	3
19857.1 A	3S8	JOSEPHINE COUNTY/GRANTS PASS	GRANTS PASS	OR	GA		343.830	343.830	1
22476.12 A	AJO	CORPORATE	PELION	SC	GA		343.491	343.491	2
RB303		NEW ORLEANS		LA			343.256	343.256	5
23499. A	BRO	BROWNSVILLE/SOUTH PADRE ISLAND INTL	BROWNSVILLE	TX	P	N	341.363	1.334.615	3
06483.1 A	JAU	AUGUSTA MUNICIPAL	AUGUSTA	KS	R	N	341.267	341.267	2
27777.1 A	U25	DUBOIS MUNICIPAL	DUBOIS	WY	GA		341.000	341.000	1
01395. A	CIC	CHICO MUNICIPAL	CHICO	CA	CS	N	339.486	339.486	2
80014		STATE OF IDAHO		ID			335.012	335.012	3
80005		STATE OF ARKANSAS		AR			334.350	334.350	2
13504. A	NY27	FULCO	JOHNSTOWN	NY	GA		332.450	864.900	1
80030		STATE OF MONTANA		MT	GA		331.860	331.860	3
91535.01 A	HI36	TAU	TAU	AS	CS	N	331.841	2.289.024	3
11648.11 A	84K	CLINTON MEMORIAL	CLINTON	MO	GA		328.085	328.085	1
16985. A		WILKES COUNTY (NEW)	NORTH WILKESBORO	NC	GA		326.120	4.340.841	2
22183. A	47J	CHERAW MUNICIPAL	CHERAW	SC	GA		325.980	325.980	1
80040		STATE OF OKLAHOMA		OK			323.404	323.404	3
12783. A	EAR	KEARNEY MUNICIPAL	KEARNEY	NE	CS	N	322.910	322.910	1
02180. A	SDM	BROWN FIELD MUNICIPAL	SAN DIEGO	CA	R	M	322.025	322.025	2
26831. A	W99	GRANT COUNTY	PETERSBURG	WV	GA		320.000	320.000	1
90024. A	ANC	ANCHORAGE INTERNATIONAL	ANCHORAGE	AK	P	M	319.961	319.961	1

14934.8 A	7GO	LEDGEDALE AIRPARK	BROCKPORT	NY	RP	M	319,796	621,513	1
25948. A	PVG	HAMPTON ROADS	PORTSMOUTH	VA	RP	M	318,451	318,451	1
00008		STATE OF COLORADO		CO			318,088	318,088	3
16097. A	SLK	ADIRONDACK	SARANAC LAKE	NY	CS	S	317,307	317,307	2
00021		STATE OF KENTUCKY		KY			315,000	315,000	1
02187.4 H		SAN FRANCISCO HELIPORT (NEW)	SAN FRANCISCO	CA	CSM	M	315,000	315,000	1
52420. A	LIH	LIHUE	LIHUE	HI	P	M	303,541	1,691,978	2
06341. A	SUX	SIOUX GATEWAY	SIOUX CITY	IA	P	M	303,297	604,800	1
M5120		MINNEAPOLIS/ST PAUL METROPOLITAN AREA		MN			303,100	303,100	3
18577. A	TOL	TOLEDO EXPRESS	TOLEDO	OH	P	S	300,000	300,000	1
00047		STATE OF TENNESSEE		TN			299,700	299,700	1
05946. A	DNS	DENISON MUNICIPAL	DENISON	IA	GA		297,795	297,795	1
03202. A	FPR	ST LUCIE COUNTY INTERNATIONAL	FORT PIERCE	FL	GA		295,871	1,706,808	2
05895.2 A	CCY	CHARLES CITY MUNICIPAL	CHARLES CITY	IA	GA		295,662	587,163	1
09211. A	PVC	PROVINCETOWN MUNICIPAL	PROVINCETOWN	MA	CS	N	294,030	294,030	1
09566. A	BEH	ROSS FIELD-TWIN CITIES	BENTON HARBOR	MI	CS	N	293,950	293,950	2
25626.2 A	HBS	HANOVER COUNTY MUNICIPAL	ASHLAND	VA	R	M	289,573	289,573	2
26959.1 A	41G	MINGO COUNTY	WILLIAMSON	WV	GA		288,700	359,700	2
03913. A	BA4	MC COLLUM	MARIETTA	GA	R	L	288,426	288,426	2
18771. A	ADH	ADA MUNICIPAL	ADA	OK	GA		288,423	288,423	2
24068. A		WEST SIDE (NEW)	HOUSTON	TX	R	M	287,000	287,000	2
24709. A	SAT	SAN ANTONIO INTERNATIONAL	SAN ANTONIO	TX	P	M	285,013	5,553,795	3
00328.1 A	4A9	ISBELL FIELD	FORT PAYNE	AL	GA		283,889	813,889	2
06348. A	SPW	SPENCER MUNICIPAL	SPENCER	IA	CS	N	280,226	280,226	1
19407. A	CVO	CORVALLIS MUNICIPAL	CORVALLIS	OR	GA		280,049	785,109	1
07747.1 A		SOUTHLAND FIELD	SULPHUR	LA	GA		278,696	953,696	2
16533. A	MRH	BEAUFORT-MOREHEAD CITY	BEAUFORT	NC	GA		278,021	844,628	3
05937. A	CRO	CRESTON MUNICIPAL	CRESTON	IA	GA		278,001	446,823	1
23094.12 A	MQI	GENERAL DEWITT SPAIN	MEMPHIS	TN	R	M	276,500	290,586	1
21335.1 A	RVL	MIFFLIN COUNTY	REEDSVILLE	PA	GA		276,368	279,291	2
02396. A	VNY	VAN NUYS	VAN NUYS	CA	GA		275,000	275,000	1
03493. A	BEF	SEBRING AIRPORT AND INDUSTRIAL PARK	SEBRING	FL	GA		274,446	828,966	1
25117. A	CDC	CEDAR CITY MUNICIPAL	CEDAR CITY	UT	CS	N	273,311	273,311	3
25282. A	SGU	ST GEORGE MUNICIPAL	ST GEORGE	UT	CS	N	272,296	272,216	2
02999. A	ILG	GREATER WILMINGTON-NEW CASTLE COUNTY	WILMINGTON	DE	CS	N	270,000	270,000	2
02204.01 A		NEW	SAN JOSE	CA	R	M	270,000	270,000	1
01327. A	BIH	BISHOP	BISHOP	CA	GA		269,801	363,259	1
04054. A	TVI	THOMASVILLE MUNICIPAL	THOMASVILLE	GA	GA		267,486	656,653	1
16894. A	MQI	DARE COUNTY REGIONAL	MANTEO	NC	GA		265,739	677,613	2
02827. A	HFD	HARTFORD BRAINARD	HARTFORD	CT	R	M	261,600	261,600	2
00002		STATE OF ALASKA		AK	GA		261,000	261,000	1
50235. A	FYU	FORT YUKON	FORT YUKON	AK	CS	N	260,151	576,019	1
27781. A		SHIVELY FIELD	SARATOGA	WY	GA		260,150	260,150	2
M3760		KANSAS CITY METRO AREA SYSTEM PLAN		MO			258,750	258,750	2
20255. A	ERI	ERIE INTERNATIONAL	ERIE	PA	P	S	257,041	1,101,950	2
07828. A	BHB	HANCOCK COUNTY-BAR HARBOR	BAR HARBOR	ME	CS	N	255,519	255,519	1
05412. A	LAF	PURDUE UNIVERSITY	LAFAYETTE	IN	CS	N	255,074	255,074	2
11244. A	GLH	GREENVILLE MUNICIPAL	GREENVILLE	MS	P	N	254,293	854,293	2
05999. A	FOD	FORT DODGE MUNICIPAL	FORT DODGE	IA	CS	N	253,942	253,942	3

12836. A	OFK	KARL STEFAN MEMORIAL	NORFOLK	NE	CS	N	253,065	253,065	1
50540. A	OME	NOME	NOME	AK	CS	N	252,817	543,750	2
M6200		MARICOPA COUNTY		AZ			251,888	251,888	3
01434. A	CPN	COMPTON	COMPTON	CA	R	L	250,000	250,000	1
01539. A	EMT	EL MONTE	EL MONTE	CA	R	L	247,950	247,950	1
11914. A	EVU	MARYVILLE MEMORIAL	MARYVILLE	MO	GA		247,888	247,888	1
22360.3 A	CKI	WILLIAMSBURG COUNTY	KINGSTREE	SC	GA		247,682	247,682	1
07137.1 A	FGX	FLEMING-MASON	FLEMINGSBURG	KY	GA		245,200	247,226	1
10546. A	BJI	BEMIDJI-BELTRAMI COUNTY	BEMIDJI	MN	CS	N	245,000	245,000	1
10393. A	UTZ	BERZ MACOMB	UTICA	MI	R	L	244,336	244,336	1
21791. A	IPT	WILLIAMSPORT-LYCOMING COUNTY	WILLIAMSPORT	PA	CS	N	243,758	484,560	2
03411. A	ONN	ORMOND BEACH MUNICIPAL	ORMOND BEACH	FL	GA		241,499	241,499	2
03820. A	6A2	GRIFFIN-SPALDING COUNTY	GRIFFIN	GA	GA		240,948	310,627	1
23808.1 A	26R	JACKSON COUNTY	EDNA/GANADO	TX	GA		240,562	701,195	2
19589. A	RBG	ROSEBURG MUNICIPAL	ROSEBURG	OR	GA		240,064	240,064	1
23750. A	DTO	DENTON MUNICIPAL	DENTON	TX	R	L	237,921	237,921	2
12503. A	SDY	SIDNEY-RICHLAND MUNICIPAL	SIDNEY	MT	CS	N	236,917	236,917	2
04326. A	S86	SANDPOINT	SANDPOINT	ID	GA		236,000	351,798	2
11375.1 A	UOX	UNIVERSITY-OXFORD	OXFORD	MS	CS	N	235,805	235,805	2
01873. A	MYV	YUBA COUNTY	MARYSVILLE	CA	GA		234,243	234,243	1
24465. A	PSN	PALESTINE MUNICIPAL	PALESTINE	TX	GA		233,133	551,100	1
01853. A	MAE	MADERA MUNICIPAL	MADERA	CA	GA		228,980	228,980	1
02160.1 A	SQL	SAN CARLOS	SAN CARLOS	CA	R	L	228,600	228,600	1
12107.2 A	BMO	SEDALIA MEMORIAL	SEDALIA	MO	GA		227,614	227,614	1
07244. A	LOU	BOWMAN FIELD	LOUISVILLE	KY	R	M	225,697	225,697	1
50034		STATE OF NEW JERSEY		NJ			225,000	225,000	1
04149. A	BOI	BOISE AIR TERMINAL	BOISE	ID	P	S	225,000	225,000	1
50320. A	HOM	HOMER	HOMER	AK	GA		224,583	382,517	1
12659. A	BBW	BROKEN BOW MUNICIPAL	BROKEN BOW	NE	GA		223,805	402,001	2
02461. A	WLW	WILLOWS-GLENN COUNTY	WILLOWS	CA	GA		221,899	221,899	1
12402. A	HLN	HELENA REGIONAL	HELENA	MT	P	N	219,435	462,372	2
01176. A	ASG	SPRINGDALE MUNICIPAL	SPRINGDALE	AR	GA		218,333	218,333	1
17786. A	LCK	RICKENBACKER	COLUMBUS	OH	R	M	215,000	215,000	.
01638. A	HAF	HALF MOON BAY	HALF MOON BAY	CA	R	L	214,896	214,896	1
00116. A	ALX	THOMAS C RUSSELL FIELD	ALEXANDER CITY	AL	GA		213,812	927,598	2
00455. A	MSL	MUSCLE SHOALS REGIONAL	MUSCLE SHOALS	AL	CS	N	213,214	213,214	2
19219.1 A		STILWELL MUNICIPAL (NEW)	STILWELL	OK	GA		213,061	388,430	1
06729. A	LBL	LIBERAL MUNICIPAL	LIBERAL	KS	CS	N	212,495	212,495	1
03359. A	I60	WILLISTON MUNICIPAL	WILLISTON	FL	GA		212,112	212,112	1
00525.1 A	SCD	MERKEL FIELD SYLACAUGA MUNICIPAL	SYLACAUGA	AL	GA		211,542	1,102,398	2
R3608		SOUTHERN TIER NEW YORK REGION		NY			211,500	211,500	4
02092. A	L12	REDLANDS MUNICIPAL	REDLANDS	CA	GA		209,847	750,000	1
11808. A	JEF	JEFFERSON CITY MEMORIAL	JEFFERSON CITY	MO	CS	N	209,740	209,740	1
15783. H		NEW YORK VTOL PORT	NEW YORK	NY	RH	L	209,070	209,070	1
24343. A	MWL	MINERAL WELLS	MINERAL WELLS	TX	GA		208,463	716,463	1
08500. A	CGS	COLLEGE PARK	COLLEGE PARK	MD	GA		208,179	606,435	1
17220. A	INT	SMITH REYNOLDS	WINSTON-SALEM	NC	CS	N	207,425	207,425	2
14793. A	HKY	HICKORY REGIONAL	HICKORY	NC	CS	N	206,302	206,302	1
00717.75 A	LHU	LAKE HAVASU CITY	LAKE HAVASU CITY	AZ	CSP	N	205,793	205,793	1

04109. A	WDR	WINDER	WINDER	GA	GA		205,664	803,428	2
25794.1 A	MLX	TWIN COUNTY	GALAX	VA	GA		205,455	211,748	1
11738. A	M65	ELTON HENSLEY MEMORIAL	FULTON	MO	GA		205,203	205,203	1
00359.7 A	AL15	JACK EDWARDS	GULF SHORES	AL	GA		204,719	1,230,642	2
RB101		CARIBBEAN BASIN REGION		PR			202,500	202,500	1
09847. A	3GM	GRAND HAVEN MEMORIAL AIRPARK	GRAND HAVEN	MI	GA		201,060	201,060	1
18061. A	1G3	KENT STATE UNIVERSITY	KENT	OH	GA		200,000	561,617	1
S0015		STATE OF HAWAII		HI			200,000	200,000	2
52271. A	LUP	KALAUPAPA	KALAUPAPA	HI	CS	N	199,860	199,800	1
R3602		GENESEE/FINGER LAKE REGION		NY			199,710	199,710	6
09548. A	BTL	W K KELLOGG REGIONAL	BATTLE CREEK	MI	CS	N	199,370	199,370	1
04344.1 A	TWF	TWIN FALLS-SUN VALLEY REGIONAL	TWIN FALLS	ID	CS	N	198,002	198,002	1
15989.2 A	POU	DUTCHESS COUNTY	POUGHKEEPSIE	NY	CS	N	198,000	198,000	1
23103. A	2M8	CHARLES W BAKER	MILLINGTON	TN	R	M	197,615	197,615	1
00886.4 A	M99	SALINE COUNTY	BENTON	AR	GA		197,319	199,805	1
12694. A	CEK	CRETE MUNICIPAL	CRETE	NE	GA		197,100	197,100	1
01002. A	HRO	BOONE COUNTY	HARRISON	AR	CS	N	196,100	199,287	1
R3603		UPPER HUDSON REGION		NY			195,750	195,750	4
09398.'A	BAF	BARNES MUNICIPAL	WESTFIELD	MA	GA		194,479	628,199	2
12597. A	AIA	ALLIANCE MUNICIPAL	ALLIANCE	NE	GA		191,999	524,109	2
23887. A	FTW	FORT WORTH MEACHAM	FORT WORTH	TX	R	L	191,308	146,308	2
S0019		STATE OF IOWA		IA			190,800	190,800	1
23328. A	AMA	AMARILLO INTERNATIONAL	AMARILLO	TX	P	S	188,460	188,460	1
12418. A	FCA	GLACIER PARK INTERNATIONAL	KALISPELL	MT	P	N	187,383	326,849	3
25897. A	PHF	PATRICK HENRY INTERNATIONAL	NEWPORT NEWS	VA	CS	N	186,776	187,155	1
10010. A	LAN	CAPITAL CITY	LANSING	MI	P	S	186,617	397,274	2
S0046		STATE OF SOUTH DAKOTA		SD			186,300	186,300	2
19502. A	MMV	MC MINNVILLE MUNICIPAL	MC MINNVILLE	OR	GA		185,275	267,410	2
04490. A	ENL	CENTRALIA MUNICIPAL	CENTRALIA	IL	GA		182,422	636,300	1
24260. A	MFE	MILLER INTERNATIONAL	MCALLEN	TX	P	N	182,370	1,012,115	2
26357. A	CLM	WILLIAM R FAIRCHILD INTERNATIONAL	PORT ANGELES	WA	CB	N	180,662	180,662	3
M1120		BOSTON METROPOLITAN AREA		MA			180,000	180,000	1
13306. A	EEN	DILLANT-HOPKINS	KEENE	NH	CS	N	179,469	179,469	3
10677. A	EVM	EVELETH-VIRGINIA MUNICIPAL	EVELETH	MN	GA		179,182	744,500	1
07979.5 A	FVE	NORTHERN AROOSTOOK REGIONAL	FRENCHVILLE	ME	CS	N	179,032	179,032	2
50284. A	GST	GUSTAVUS	GUSTAVUS	AK	CB	N	178,431	494,319	1
04071. A	VLD	VALDOSTA REGIONAL	VALDOSTA	GA	CB	N	178,067	178,067	2
01668. A	307	HOLLISTER MUNICIPAL	HOLLISTER	CA	GA		176,823	176,823	1
13163. A	043	YERINGTON MUNICIPAL	YERINGTON	NV	GA		175,784	829,849	1
05281. A	SMD	SMITH FIELD	FORT WAYNE	IN	R	N	174,024	174,024	3
01142. A	PBF	GRIDER FIELD	PINE BLUFF	AR	GA		173,593	365,700	1
R1006		DELAWARE VALLEY REGION		PA			173,131	173,131	1
S0054		STATE OF WEST VIRGINIA		WV			171,000	171,000	1
50590.2 A	PSG	PETERSBURG	PETERSBURG	AK	CS	N	170,070	485,938	1
09881. A	CMX	HOUGHTON COUNTY MEMORIAL	HANCOCK	MI	CS	N	169,377	169,377	1
06194. A	MPI	MOUNT PLEASANT MUNICIPAL	MOUNT PLEASANT	IA	GA		168,931	168,931	1
17302. A	DVL	DEVILS LAKE MUNICIPAL	DEVILS LAKE	ND	CS	N	167,490	167,490	1
17939. A	G00	GALION MUNICIPAL	GALION	OH	GA		166,002	527,301	1
S0033		STATE OF NEW HAMPSHIRE							

				NH			163,757	163,757	1
05950. A	DSM	DES MOINES MUNICIPAL	DES MOINES	IA	P	S	163,318	1,382,808	2
50056		STATE OF WYOMING		WY			162,767	162,767	4
02719. A	0V2	HARRIET ALEXANDER FIELD	SALIDA	CO	GA		162,543	162,543	1
23710.3 A	ADS	ADDISON	DALLAS	TX	R	L	162,000	162,000	1
09110. A	ACK	NANTUCKET MEMORIAL	NANTUCKET	MA	P	N	158,815	869,810	2
12964. A	AHQ	WAHOO MUNICIPAL	WAHOO	NE	GA		158,783	158,783	1
50004		STATE OF ARIZONA		AZ			158,217	158,217	1
01376.1 A	CRQ	MCCLELLAN-PALOMAR	CARLSBAD	CA	GA		157,500	157,500	1
01967. A	O56	GNOSS FIELD	NOVATO	CA	R	L	157,500	157,500	1
26372. A	PUW	PULLMAN-MOSCOW REGIONAL	PULLMAN	WA	CS	N	157,044	157,044	1
00128. A	ANB	ANNISTON METROPOLITAN	ANNISTON	AL	CS	N	155,856	155,856	3
MD301		GULF COAST PLANNING REGION		TX			155,000	155,000	2
22536.21 A	71S	DORCHESTER COUNTY	SUMMERVILLE	SC	GA		154,912	962,750	3
11861. A	LBO	FLOYD W JONES LEBANON	LEBANON	MO	GA		154,434	388,385	1
50106.5 A		CIRCLE CITY	CIRCLE CITY	AK	GA		152,218	2,755,754	1
10962.1 A	STC	ST CLOUD MUNICIPAL	ST CLOUD	MN	GA		152,210	1,021,713	1
22614.01 A	3D3	NEW	BELLE FOURCHE	SD	GA		150,995	656,968	1
22324.1 A	HVS	HARTSVILLE MUNICIPAL	HARTSVILLE	SC	GA		150,096	212,447	2
26070. A	W16	WINCHESTER REGIONAL	WINCHESTER	VA	GA		150,000	150,000	1
09726. A		NEW	MT. CLEMENS	MI	R	L	150,000	150,000	1
52240. A	OGG	KAHULUI	KAHULUI	HI	P	M	150,000	150,000	1
27170. A	EAU	EAU CLAIRE COUNTY	EAU CLAIRE	WI	CS	N	149,771	150,703	1
06254.21 A		NEW	OSCEOLA	IA	GA		149,610	636,728	1
00110. A	21A	SHELBY COUNTY	ALABASTER	AL	R	M	148,037	148,037	2
06801.1 A	OEL	OAKLEY MUNICIPAL	OAKLEY	KS	GA		147,706	147,706	2
25496.1 A	MVL	MORRISVILLE-STOWE STATE	MORRISVILLE	VT	GA		147,592	463,147	1
09180. A	OWD	NORWOOD MEMORIAL	NORWOOD	MA	R	L	145,800	145,800	2
03298. A	LEE	LEESBURG MUNICIPAL	LEESBURG	FL	GA		145,201	685,640	3
26165.01 A		COLVILLE (NEW)	COLVILLE	WA	GA		145,000	165,898	2
12668. A	BUB	CRAM FIELD	BURWELL	NE	GA		144,900	144,900	1
23965.1 A	F55	GRANBURY MUNICIPAL	GRANBURY	TX	GA		144,300	386,300	3
02042.1 A		PETALUMA MUNICIPAL	PETALUMA	CA	GA		144,190	1,482,475	2
27741. A	BPI	BIG PINEY-MARBLETON	BIG PINEY	WY	GA		142,730	207,539	1
25876.1 A	MTV	BLUE RIDGE	MARTINSVILLE	VA	GA		142,329	189,000	1
11358. A	HEZ	HARDY-ANDERS FIELD/NATCHEZ-ADAMS COUNTY	NATCHEZ	MS	GA		141,142	141,142	1
12125. A	SIK	SIKESTON MEMORIAL MUNICIPAL	SIKESTON	MO	GA		141,096	141,096	1
18795. A	ADM	ARDMORE MUNICIPAL	ARDMORE	OK	GA		138,960	138,960	2
22316.1 A	GSP	GREENVILLE-SPARTANBURG	GREER	SC	P	S	138,827	2,035,827	1
10692. A	FFM	FERGUS FALLS MUNI-EINAR MICKELSON	FERGUS FALLS	MN	GA		137,882	1,735,039	1
25300. A	U77	SPANISH FORK-SPRINGVILLE	SPANISH FORK	UT	GA		137,332	137,332	1
00831. A	F32	WILLIAMS MUNICIPAL	WILLIAMS	AZ	GA		136,832	136,832	1
09968. A	IWD	GOGEBIC COUNTY	IRONWOOD	MI	CS	N	135,000	135,000	1
01219. A	L70	AGUA DULCE AIRPARK	AGUA DULCE	CA	RP	L	135,000	135,000	1
02352. A	THM	THERMAL	THERMAL	CA	GA		135,000	135,000	1
24395.1 A		NEW	MULESHOE	TX	GA		134,343	1,381,343	1
03186. A	55J	FERNANDINA BEACH MUNICIPAL	FERNANDINA BEACH	FL	GA		134,072	137,771	1
12485. A	7B0	RONAN	RONAN	MT	GA		133,597	350,269	2
04891. A	MVN	MT VERNON-OUTLAND	MOUNT VERNON	IL	CS	N	133,380	133,380	1
02137. A	SNS	SALINAS MUNICIPAL	SALINAS	CA	GA		133,200	133,200	1

13083.29A		HENDERSON SKY HARBOR	HENDERSON	NV	GA		132,703	132,703	1
12785.2 A	4V7	KIMBALL MUNICIPAL	KIMBALL	NE	GA		132,203	1,244,072	2
14748. A	TCC	TUCUMCARI MUNICIPAL	TUCUMCARI	NM	GA		131,979	549,740	1
22309. A	GMU	GREENVILLE DOWNTOWN	GREENVILLE	SC	GA		131,845	418,186	1
02785. A	BDR	IGOR I SIKORSKY MEMORIAL	BRIDGEPORT	CT	P	N	131,400	131,400	1
14353.1 A	N44	ROBERT J. MILLER AIRPARK	TOMS RIVER	NJ	GA		130,781	180,771	2
07421. A	2F8	MOREHOUSE MEMORIAL	BASTROP	LA	GA		130,767	481,818	2
26948. A	HLG	WHEELING - OHIO COUNTY	WHEELING	WV	GA		129,600	639,000	1
02314. A	SCK	STOCKTON METROPOLITAN	STOCKTON	CA	P	N	129,150	129,150	1
26820. A	PKB	WOOD COUNTY/GILL ROBB WILSON FIELD	PARKERSBURG	WV	P	N	128,561	781,209	1
24067.61 A	SGR	HOUSTON-HULL	HOUSTON	TX	RP	L	126,900	126,900	2
01588.3 A		NEW	FREMONT	CA	P	L	126,395	126,395	2
03862. A	LGC	CALLAWAY	LAGRANGE	GA	GA		126,392	409,194	2
23745. A	DRT	DEL RIO INTERNATIONAL	DEL RIO	TX	GA		125,000	125,000	1
90075		TRUST TERRITORY OF THE PACIFIC ISLANDS		TT			124,740	124,740	1
90020		STATE OF KANSAS		KS			123,750	123,750	1
03614. A	ABY	SOUTHWEST GEORGIA REGIONAL	ALBANY	GA	P	N	123,750	704,655	1
03430.1 A	PFN	PANAMA CITY-BAY COUNTY	PANAMA CITY	FL	P	N	122,210	1,769,261	2
03538. A	VNC	VENICE MUNICIPAL	VENICE	FL	GA		121,395	121,395	1
00660.3 A	BXK	BUCKEYE MUNICIPAL	BUCKEYE	AZ	GA		120,562	197,138	1
05996. A		FOREST CITY MUNICIPAL	FOREST CITY	IA	GA		118,976	118,976	1
12681. A	OLU	COLUMBUS MUNICIPAL	COLUMBUS	NE	GA		118,792	140,794	1
26307. A	MWH	GRANT COUNTY	MOSES LAKE	WA	CS	N	117,104	117,104	1
21248.22 H		NEW	PITTSBURGH	PA	RH	L	117,000	117,000	2
R3609		LAKE CHAMPLAIN/GEORGE REGION		NY			116,462	116,462	4
27346. A	MSN	DANE COUNTY REGIONAL-TRUAX FIELD	MADISON	WI	P	S	116,407	767,894	1
23307. A	E38	ALPINE MUNICIPAL	ALPINE	TX	GA		115,514	380,000	1
12549.1 A	WYS	YELLOWSTONE	WEST YELLOWSTONE	MT	CS	N	115,000	115,000	2
50920. A	YAK	YAKUTAT	YAKUTAT	AK	CS	N	114,461	328,875	1
21212.41 H		NEW DOWNTOWN HELIPORT	PHILADELPHIA	PA	RH	L	114,322	114,322	1
24206. A	0Z4	LEVELLAND MUNICIPAL	LEVELLAND	TX	GA		113,375	1,007,572	2
51510.1 A		GUAM - NEW	AGANA	GU	GA		112,500	112,500	1
51525. A	PPG	PAGO PAGO INTERNATIONAL	PAGO PAGO	AS	P	N	112,398	167,000	1
14109. A	26N	OCEAN CITY MUNICIPAL	OCEAN CITY	NJ	GA		112,392	497,306	1
04046. A	2A2	REGINALD GRANT MEMORIAL	THOMASTON	GA	GA		111,811	111,811	1
00682. A	FHU	LIBBY AAF/SIERRA VISTA MUNICIPAL	FORT HUACHUCA	AZ	GA		111,516	799,962	1
26120. A	PWT	KITSAP COUNTY	BREMERTON	WA	GA		111,000	111,000	2
22468. A	OGB	ORANGEBURG MUNICIPAL	ORANGEBURG	SC	GA		110,982	110,982	1
19111. A	MKO	DAVIS FIELD	MUSKOGEE	OK	GA		110,700	848,700	1
05090.1 A	AID	ANDERSON MUNICIPAL	ANDERSON	IN	GA		110,619	110,619	2
12082.11 A		NEW	CLAYTON	MO	R	L	110,179	110,179	2
13487. A	ACY	ATLANTIC CITY	ATLANTIC CITY	NJ	P	N	109,875	604,475	2
14637. A	LVS	LAS VEGAS MUNICIPAL	LAS VEGAS	NM	GA		109,507	790,507	1
12743.1 A		MID-NEBRASKA REGIONAL (NEW)	GRAND ISLAND	NE	GA		108,000	108,000	1
19635.01 A		NEW	WASCO	OR	GA		107,544	673,544	2
09943. A	3HE	LIVINGSTON COUNTY	HOWELL	MI	GA		106,645	1,173,103	1
05101.1 A	07C	AUBURN DEKALB	AUBURN	IN	GA		106,020	326,520	1
11582.9 A	BUM	BUTLER MEMORIAL	BUTLER	MO	GA		105,887	105,887	1

80029		STATE OF MISSOURI		MO			104.161	104.161	2
12877.3 H		ST LOUIS COUNTY (NEW HELIPORT)	CLAYTON	MO	RH	L	103.500	103.500	1
H0403		MID-CALIFORNIA	SACRAMENTO	CA			103.500	103.500	2
06621. A	GCK	GARDEN CITY MUNICIPAL	GARDEN CITY	KS	GA		102.600	102.600	1
21329. A	RDG	READING MUNICIPAL,GEN. CARL A SPAATZ	READING	PA	P	N	102.203	1.108.800	2
04024. A	00A	STONE MOUNTAIN-BRITT MEMORIAL	STONE MOUNTAIN	GA	R	L	100.181	112.860	2
12623.9 A	RBE	BASSETT MUNICIPAL	BASSETT	NE	GA		100.095	102.600	1
RJ753		NORTHEAST OHIO AREA		OH			100.000	100.000	1
24976. A	ACT	WACO REGIONAL	WACO	TX	P	N	100.000	950.000	1
26693. A	HTS	TRI-STATE/WALKER-LONG FIELD	HUNTINGTON	WV	P	N	99.979	1.845.729	2
27465. A	OEO	L.O. SIMENSTAD MUNICIPAL	OSCEOLA	WI	GA		99.000	843.930	1
25735. A	PSK	NEW RIVER VALLEY	DUBLIN	VA	GA		98.988	98.988	1
25164. A	36U	HEBER VALLEY	HEBER CITY	UT	GA		98.110	638.828	1
03637. A	AHN	ATHENS-BEN EPPS	ATHENS	GA	CS	N	97.758	97.758	1
03446. A		PLANT CITY MUNICIPAL	TAMPA	FL	GA		97.000	97.000	1
03519. A		PETER O'KNIGHT	TAMPA	FL	R	L	97.000	97.000	1
01301.1 A		NEW	DANHURST	CA	GA		96.232	96.232	1
14528.36 A		ALBUQUERQUE NORTH RELIEVER NEW	FTH ALBUQUERQUE	NM	R	N	95.670	95.670	1
12817. A	0V3	PIONEER VILLAGE FIELD	MINDEN	NE	GA		95.479	441.107	2
17148.5 A	24A	JACKSON COUNTY	SYLVA	NC	GA		92.970	92.970	1
M1720		COLORADO SPRINGS METROPOLITAN AREA		CO			91.859	91.859	2
05375.1 A		HENDRICKS COUNTY	INDIANAPOLIS	IN	GA		91.440	91.440	2
18075. A	115	FAIRFIELD COUNTY	LANCASTER	OH	GA		91.275	605.000	1
00751. A		NEW	PHOENIX	AZ	R	L	91.060	91.060	1
03042. A	AVO	AVON PARK MUNICIPAL	AVON PARK	FL	GA		90.163	259.063	2
20502.1 H		NEW	HARRISBURG	PA	RH	S	90.152	90.152	2
08457.1 H		BALTIMORE CITY HELIPORT (NEW)	BALTIMORE	MD	RH	L	90.000	90.000	1
RJ752		CENTRAL ILLINOIS REGION		IL			90.000	90.000	1
09851.8 H		GRAND RAPIDS HELIPORT	GRAND RAPIDS	MI	GAH		90.000	90.000	1
17524. A	AKR	AKRON FULTON INTERNATIONAL	AKRON	OH	R	S	90.000	90.000	1
26266.21 A		WHIDBEY AIR PARK	LANGLEY	WA	GA		90.000	90.000	2
23461. A	BGD	HUTCHINSON COUNTY	BORGER	TX	GA		90.000	90.000	1
17620. A	1G0	WOOD COUNTY	BOWLING GREEN	OH	GA		89.227	2.913.076	3
22224.2 A	HYW	CONWAY-HORRY COUNTY	CONWAY	SC	GA		88.923	1.290.023	2
01849.1 A	209	PEARCE FIELD	LOWER LAKE	CA	GA		88.560	88.560	1
26130. A	WA10	PORT OF CAMAS-WASHOUGAL	CAMAS	WA	GA		88.554	88.554	1
26444. A	60S	PEARSON AIRPARK	VANCOUVER	WA	GA		88.290	88.290	1
03683. A	BQK	GLYNCO JETPORT	BRUNSWICK	GA	CS	N	86.406	86.406	1
06070. A	IOW	IOWA CITY MUNICIPAL	IOWA CITY	IA	GA		86.190	281.925	1
17052.1 A	NC14	ROCKINGHAM COUNTY NC SHILOH	REIDSVILLE	NC	GA		85.737	581.034	1
21300. A	ZER	SCHUYLKILL COUNTY/JOE ZERBEY	POTTSVILLE	PA	GA		85.500	85.500	1
26327. A	OLM	OLYMPIA	OLYMPIA	WA	GA		85.500	85.500	1
02022. A	PAO	PALO ALTO AIRPORT OF SANTA CLARA COUNTY	PALO ALTO	CA	R	L	85.230	85.230	1
23409.4 A	3R1	BAY CITY MUNICIPAL	BAY CITY	TX	GA		84.817	84.817	2
00926.2 A	4M9	CORNING MUNICIPAL	CORNING	AR	GA		84.566	334.566	1
13089.7 A		MESQUITE	MESQUITE	NV	GA		84.375	84.375	1
03468. A	BGJ	ST AUGUSTINE	ST AUGUSTINE	FL	GA		83.916	411.310	1
24159. A	ERV	KERRVILLE MUNICIPAL/LOUIS SCHREINER FLD	KERRVILLE	TX	GA		83.744	633.744	1
M9040		SEDGWICK, HARVEY AND BUTLER COUNTIES		KS			82.875	82.875	3

27819. A	EMM	KEMMERER MUNICIPAL	KEMMERER	WY	GA		81.858	1,157,469	3
09903. A	9D9	HASTINGS MUNICIPAL	HASTINGS	MI	GA		81.075	257,314	1
00010		STATE OF DELAWARE		DE			81.000	81,000	1
26811. A	W78	WILLIAM M. TUCK	SOUTH BOSTON	VA	GA		81.000	463,500	1
19135.08 H		HELIPORT (NEW)	OKLAHOMA CITY	OK	GAH		80.640	80,640	1
12278. A	BZN	GALLATIN FIELD	BOZEMAN	MT	P	N	80.210	1,106,500	2
15309. A	GFL	WARREN COUNTY	GLENS FALLS	NY	GA		80.043	1,114,848	1
04209. A	IDA	IDAHO FALLS MUNICIPAL	IDAHO FALLS	ID	P	N	80.000	80,000	1
22310. A	7A1	DONALDSON CENTER	GREENVILLE	SC	GA		77.506	77,506	2
26246. A	KLS	KELSO-LONGVIEW	KELSO	WA	GA		77.059	500,000	1
13488. A	AIY	ATLANTIC CITY MUNICIPAL/BADER FIELD	ATLANTIC CITY	NJ	P	N	76.500	76,500	1
04703.1 A	C81	CAMPBELL	GRAYSLAKE	IL	GA		76.500	76,500	1
01710.1 A	L05	KERN VALLEY	BAKERSFIELD	CA	GA		76.500	76,500	1
04017. A	TBR	STATESBORO MUNICIPAL	STATESBORO	GA	GA		75.427	243,384	1
02292. A	MIT	SHAFTER-MINTER FIELD	SHAFTER	CA	GA		74.925	74,925	1
24477. A	852	METHOW VALLEY STATE	WINTHROP	WA	GA		73.318	375,480	1
12167. A		NEW	TROY	MO	GA		73.260	73,260	1
19356. A	3G2	AURORA STATE	AURORA	OR	GA		73.092	73,092	1
01276.11 A		AVALON (NEW)	AVALON	CA	GA		72.500	72,500	1
24633. A	RKP	ARANSAS COUNTY	ROCKPORT	TX	GA		72.311	120,000	1
25713. A	W49	CULPEPER COUNTY	CULPEPER	VA	GA		72.169	343,631	2
22129.1 A	BBP	MARLBORO COUNTY	BENNETTSVILLE	SC	GA		72.051	97,368	1
13094. A	2N3	CORAM	CORAM	NY	GA		72.000	72,000	1
25960. A	W96	NEW KENT COUNTY	QUINTON	VA	GA		72.000	273,600	1
19622. A		PORTLAND-TROUTDALE	TROUTDALE	OR	R	M	72.000	72,000	1
01132. A	PGR	KIRK FIELD	PARAGOULD	AR	GA		72.000	72,000	1
08246. A	RKD	KNOX COUNTY REGIONAL	ROCKLAND	ME	CS	N	70.290	70,290	2
25348. A	MPV	EDWARD F KNAPP STATE	MONTPELIER	VT	CS	N	70.000	70,000	1
23352.1 A	F56	ARLINGTON MUNICIPAL	ARLINGTON	TX	GA		69.946	69,946	2
12381. A	GTF	GREAT FALLS INTERNATIONAL	GREAT FALLS	MT	P	S	69.814	160,000	1
01336. A	BLH	BLYTHE	BLYTHE	CA	GA		69.300	69,300	1
24461. A	EAT	PANGBORN FIELD	WENATCHEE	WA	CS	N	69.227	427,877	2
00022		VARIOUS LOCATIONS	BATON ROUGE	LA	GA		67.979	372,979	1
18167. A	MNN	MARION MUNICIPAL	MARION	OH	GA		67.644	74,438	1
23412.2 A		NEW	BAYTOWN	TX	R	L	67.500	67,500	1
12512. A	S64	STANFORD	STANFORD	MT	GA		67.471	67,471	1
01289.1 A	L45	BAKERSFIELD MUNICIPAL	BAKERSFIELD	CA	GA		67.365	67,365	1
17101. A	W27	JOHNSTON COUNTY	SMITHFIELD	NC	GA		66.648	313,518	1
26434.4 A	TIW	TACOMA NARROWS	TACOMA	WA	GA		66.624	990,009	1
10013. A	D95	DUPONT-LAPEER	LAPEER	MI	GA		66.600	66,600	1
00794.1 A	SOW	SNOW LOW MUNICIPAL	SNOW LOW	AZ	GA		66.019	66,019	1
17092. A	EHO	SHELBY MUNICIPAL	SHELBY	NC	GA		65.997	65,997	2
00032		STATE OF NEVADA		NV	GA		65.943	65,943	2
19098.1 A	MIO	MIAMI MUNICIPAL	MIAMI	OK	GA		65.902	401,278	1
19345. A	S12	ALBANY MUNICIPAL	ALBANY	OR	GA		65.158	302,745	1
02669. A	2V2	LONGMONT MUNICIPAL	LONGMONT	CO	GA		64.000	679,742	1
16367. A	ART	WATERTOWN INTERNATIONAL	WATERTOWN	NY	CS	N	63.900	63,900	2
25988. A		NEW	ROCKY MOUNT	VA	GA		63.811	63,811	1
13914. A	LDJ	LINDEN	LINDEN	NJ	R	L	63.000	63,000	1

26195. A	ELN	BOWERS FIELD	ELLENSBURG	WA	GA		63.000	63.000	1
01369.8 A	061	CAMERON AIRPARK	CAMERON PARK	CA	GA		63.000	63.000	1
04937.2 A	3MY	MOUNT HAWLEY AUXILIARY	PEORIA	IL	GA		62.967	450.000	2
01108.1 A	7M3	BEARCE	MOUNT IDA	AR	GA		62.400	182.100	1
25016.11 A	5R5	WHARTON MUNICIPAL	WHARTON	TX	GA		62.238	557.238	2
06258. A	OTM	OTTUMWA INDUSTRIAL	OTTUMWA	IA	CS	N	61.998	338.720	2
00901.1 A	HKA	BLYTHEVILLE MUNICIPAL	BLYTHEVILLE	AR	GA		61.894	486.859	2
01273. A	AUN	AUBURN MUNICIPAL	AUBURN	CA	GA		61.290	61.290	1
07819. A	AUG	AUGUSTA-STATE	AUGUSTA	ME	CS	N	61.245	61.245	1
11360.1 A	M72	NEW ALBANY-UNION COUNTY	NEW ALBANY	MS	GA		60.879	60.879	1
27771. A	9U4	DIXON	DIXON	WY	GA		60.000	60.000	1
03721.9 A		NEW	CLAYTON	GA	GA		59.715	59.715	1
07122. A	KY62	GENE SNYDER	FALMOUTH	KY	GA		59.529	59.529	1
03555.1 A	LNA	PALM BEACH COUNTY PARK	WEST PALM BEACH	FL	R	M	59.000	59.000	1
51523. A	GSN	SAIPAN INTERNATIONAL	SAIPAN	CQ	P	M	58.999	452.327	1
03974. A	RMG	RICHARD B RUSSELL	ROME	GA	GA		58.952	58.952	1
05192. A	BAK	COLUMBUS MUNICIPAL	COLUMBUS	IN	GA		58.800	103.800	2
01626. A	017	NEVADA COUNTY AIR PARK	GRASS VALLEY	CA	GA		58.516	58.516	1
11780. A		JEFFERSON COUNTY (NEW)	HILLSBORO	MO	GA		58.500	58.500	1
14544. A	019	AZTEC MUNICIPAL (NEW)	AZTEC	NM	GA		58.500	58.500	1
01419. A	CLG	NEW	COALINGA	CA	GA		58.500	58.500	1
04781.1 A	C07	KEWANEE MUNICIPAL	KEWANEE	IL	GA		58.313	155.311	1
21308. A	UKT	QUAKERTOWN	QUAKERTOWN	PA	GA		58.260	458.280	1
26450. A	ALW	CITY-COUNTY	WALLA WALLA	WA	CS	N	57.936	57.936	1
02627. A	GXY	GREELEY-WELD COUNTY	GREELEY	CO	GA		57.593	438.373	2
00437. A	BFM	BROOKLEY	MOBILE	AL	GA		56.047	900.354	2
25886.31 A		SHENANDOAH COUNTY	MT. JACKSON	VA	GA		56.000	56.000	1
22899. A	CHA	LOVELL FIELD	CHATTANOOGA	TN	P	S	55.993	975.532	1
11253. A	GPT	GULFPORT-BILOXI REGIONAL	GULFPORT-BILOXI	MS	P	N	55.821	1,651.641	2
21888. A	BID	BLOCK ISLAND STATE	BLOCK ISLAND	RI	CS	N	55.000	55.000	1
01701. A	070	WESTOVER FIELD/AMADOR COUNTY	JACKSON	CA	GA		54.450	54.450	1
05544. A	OVO	NORTH VERNON	NORTH VERNON	IN	GA		54.435	352.849	1
18432.5 A	29G	PORTAGE COUNTY	RAVENNA	OH	GA		54.000	54.000	1
19595. A	SLE	MCNARY FIELD	SALEM	OR	GA		54.000	54.000	1
02341. A	TSP	TEHACHAPI MUNICIPAL	TEHACHAPI	CA	GA		54.000	54.000	1
15932. A	N22	PENN YAN	PENN YAN	NY	GA		53.712	53.712	1
13106.7 A		PARUMPH (NEW)	PARUMPH	NV	GA		53.437	53.437	1
18609. A	VNW	VAN WERT COUNTY	VAN WERT	OH	GA		53.370	53.370	1
05308. A	GSH	GOSHEN MUNICIPAL	GOSHEN	IN	GA		52.727	378.527	1
21782. A	WBW	WILKES-BARRE WYOMING VALLEY	WILKES-BARRE	PA	GA		52.200	102.200	1
13138. A	TPH	TONOPAH	TONOPAH	NV	GA		51.585	238.969	2
25851.01 A		NEW	LEXINGTON	VA	GA		50.850	50.850	1
08108.1 A	7B4	MACHIAS VALLEY	MACHIAS	ME	GA		50.787	558.660	1
01165. A	M07	SEARCY MUNICIPAL	SEARCY	AR	GA		50.440	263.864	1
26168.13 A		NEW	CONNELL	WA	GA		50.000	50.000	1
26275. A	WA33	NEW	LYNDEN	WA	GA		50.000	50.000	1
03288. A	X07	LAKE WALES MUNICIPAL	LAKE WALES	FL	GA		50.000	50.000	1
03570. A	GIF	WINTER HAVENS GILBERT	WINTER HAVEN	FL	GA		50.000	50.000	1
03577. A	ZPH	ZEPHYRHILLS MUNICIPAL	ZEPHYRHILLS	FL	GA		50.000	50.000	1

07493. A	DRI	BEAUREGARD PARISH	DE RIDDER	LA	GA	50.000	50.000	1
18953. A	WDG	ENID WOODRING MUNICIPAL	ENID	OK	CS N	50.000	50.000	1
16391.1 A	ELZ	WELLSVILLE MUNICIPAL	WELLSVILLE	NY	GA	49.500	49.500	1
18722.21 A	BJJ	WAYNE COUNTY	WOOSTER	OH	GA	49.500	49.500	1
24231. A	SOR	LOCKHART MUNICIPAL	LOCKHART	TX	GA	49.500	49.500	1
19080. A	MLC	MC ALESTER MUNICIPAL	MC ALESTER	OK	GA	49.500	49.500	1
07413. A	ESF	ESLER REGIONAL	ALEXANDRIA	LA	P N	49.320	49.320	1
18779. A	AXS	ALTUS MUNICIPAL	ALTUS	OK	CS N	49.180	99.180	1
26480. A	YKM	YAKIMA AIR TERMINAL	YAKIMA	WA	P S	48.942	48.942	1
01998. A	OVE	OROVILLE MUNICIPAL	OROVILLE	CA	GA	48.796	911.588	3
18562. A	2G2	JEFFERSON COUNTY	STEUBENVILLE	OH	GA	48.645	48.645	1
17079. A	RUQ	ROWAN COUNTY	SALISBURY	NC	GA	48.600	48.600	1
08677. A	W54	WESTMINSTER	WESTMINSTER	MD	GA	47.997	47.997	1
03245. A	IMM	IMMOKALEE	IMMOKALEE	FL	GA	47.941	297.941	1
M8520		TUCSON METROPOLITAN AREA		AZ		47.925	47.925	1
12824.11 A		NEW	NEBRASKA CITY	NE	GA	47.806	47.806	1
03052. A	BOW	BARTOW MUNICIPAL	BARTOW	FL	GA	47.700	47.700	1
24986.21 A		MIDLOTHIAN-WAXAHACHIE (NEW)	WAXAHACHIE	TX	GA	47.339	649.722	1
12889.2 A	PMV	PLATTSMOUTH MUNICIPAL	PLATTSMOUTH	NE	R N	47.001	47.001	2
07337.1 A	7K0	PIKE COUNTY REGIONAL	PIKEVILLE	KY	GA	46.800	46.800	1
10775.91 A	Y12	AIRLAKE INDUSTRIAL PARK	LAKEVILLE	MN	R L	46.800	46.800	1
01307. A	002	NERVINO	BECKWOURTH	CA	GA	46.763	46.763	1
01392. A	005	CHESTER	CHESTER	CA	GA	46.350	46.350	1
02074. A	201	GANSNER FIELD	QUINCY	CA	GA	46.350	46.350	1
07739. A	DTN	SHREVEPORT DOWNTOWN	SHREVEPORT	LA	R S	46.350	46.350	1
00747.1 A	E69	PAYSON	PAYSON	AZ	GA	45.606	501.656	1
03387. A	34J	NEW SMYRNA BEACH MUNICIPAL	NEW SMYRNA BEACH	FL	GA	45.530	45.530	1
03611. A	15J	COOK COUNTY	ADEL	GA	GA	45.325	339.325	1
27893. A		(NEW)	SUNDANCE	WY	GA	45.225	457.905	1
11595. A		LEWIS COUNTY (NEW)	CANTON	MO	GA	45.040	45.040	1
09657. A	07G	FITCH H BEACH	CHARLOTTE	MI	GA	45.000	45.000	1
1814.. A	7G8	GEAUGA COUNTY	MIDDLEFIELD	OH	GA	45.000	67.500	1
S0050		STATE OF VERMONT		VT		45.000	45.000	1
19616. A	S47	TILLAMOOK	TILLAMOOK	OR	GA	45.000	45.000	1
18962.1 A	F08	EUFAULA MUNICIPAL	EUFAULA	OK	GA	45.000	45.000	1
19051.12 A		KINGFISHER COUNTY (NEW)	KINGFISHER	OK	GA	45.000	45.000	1
R4806		EAST TEXAS REGION		TX		45.000	45.000	1
02366. A	TRK	TRUCKEE-TAHOE	TRUCKEE	CA	GA	45.000	45.000	1
07405. A	OR3	ABBEVILLE MUNICIPAL	ABBEVILLE	LA	GA	44.640	44.640	1
04164.1 A	U70	CASCADE	CASCADE	ID	GA	44.498	822.563	2
03623. A	ACJ	SOUTHER FIELD	AMERICUS	GA	GA	44.498	608.755	1
01297. A	BNG	BANNING MUNICIPAL	BANNING	CA	GA	44.460	44.460	1
06700.11 A		NEW	KANSAS CITY	KS	GA	44.010	44.010	1
01342. A	BWC	BRAWLEY MUNICIPAL	BRAWLEY	CA	GA	44.000	262.092	1
25882. A	MFV	ACCOMACK COUNTY	MELFA	VA	GA	43.892	143.414	1
09207. A	PYM	PLYMOUTH MUNICIPAL	PLYMOUTH	MA	GA	43.505	43.505	1
23305. A	ALI	ALICE INTERNATIONAL	ALICE	TX	GA	43.278	343.278	1
05915. A	CWI	CLINTON MUNICIPAL	CLINTON	IA	CS N	43.200	43.200	1
14466. A		WOODBINE MUNICIPAL	WOODBINE	NJ	GA	43.075	376.075	1

02052. A	PVF	PLACERVILLE	PLACERVILLE	CA	GA		42,760	252,022	2
18339.12 A	OH21	HURON COUNTY	NORWALK	OH	GA		42,750	42,750	1
19178.12 A		PURCELL MUNICIPAL (NEW)	PURCELL	OK	GA		42,570	42,570	1
11801.01 A		INDEPENDENCE (NEW)	INDEPENDENCE	MO	R	M	42,442	42,442	1
01778. A	048	MENDOCINO COUNTY	LITTLE RIVER	CA	GA		42,291	42,291	1
26028. A	SF6	SUFFOLK MUNICIPAL	SUFFOLK	VA	GA		40,950	40,950	1
03703.9 A	47A	CHEROKEE COUNTY	CANTON	GA	GA		40,930	119,950	2
03419.1 A	PHK	PALM BEACH COUNTY GLADES	PAHOKEE	FL	GA		40,900	40,900	1
01161.1 A	M06	RUSSELLVILLE MUNICIPAL	RUSSELLVILLE	AR	GA		40,578	310,800	1
12061. A	3S2	ST CHARLES COUNTY SMARTT	ST CHARLES	MO	R	L	40,500	40,500	1
07055. A	BWG	BOWLING GREEN-WARREN COUNTY	BOWLING GREEN	KY	GA		40,500	40,500	1
02062. A	PTV	PORTERVILLE MUNICIPAL	PORTERVILLE	CA	GA		40,500	40,500	1
23726. A	8F7	DECATUR MUNICIPAL	DECATUR	TX	GA		40,050	40,050	1
20480.2 A	29D	GROVE CITY	GROVE CITY	PA	GA		40,000	540,000	1
26213. A	S18	FORKS MUNICIPAL	FORKS	WA	GA		40,000	40,000	1
03396. A	OBE	OKEECHOBEE COUNTY	OKEECHOBEE	FL	GA		40,000	223,172	1
19411.1 A	61S	COTTAGE GROVE STATE	COTTAGE GROVE	OR	GA		39,999	39,999	1
25609.02 H		NEW	ALEXANDRIA	VA	RH	L	39,962	39,962	1
01695. A	IYK	INYOKERN	INYOKERN	CA	CS	N	39,780	39,780	1
12537. A	7S1	TWIN BRIDGES	TWIN BRIDGES	MT	GA		39,691	39,691	2
07267. A	M25	MAYFIELD-GRAVES COUNTY	MAYFIELD	KY	GA		39,684	509,042	1
01521. A	104	DUNSMUIR MUNI-MOTT	DUNSMUIR	CA	GA		39,600	39,600	1
01906. A	SIY	SISKIYOU COUNTY	MONTAGUE	CA	GA		39,330	39,330	1
09281. A	3B0	SOUTHBRIDGE MUNICIPAL	SOUTHBRIDGE	MA	GA		39,215	39,215	1
23619. A	6R3	CLEVELAND MUNICIPAL	CLEVELAND	TX	GA		39,214	777,214	2
07490.11 A	5R8	DE QUINCY INDUSTRIAL AIRPARK	DE QUINCY	LA	GA		38,943	308,943	1
50041. A	Z46	ATQASUK	ATQASUK	AK	GA		38,702	728,288	1
18603. A	174	GRIMES FIELD	URBANA	OH	GA		38,700	38,700	1
23903. A	T82	GILLESPIE COUNTY	FREDERICKSBURG	TX	GA		38,583	38,583	1
19015.1 A		HINTON (NEW)	HINTON	OK	GA		38,576	38,576	1
11765. A	H23	HANNIBAL MUNICIPAL	HANNIBAL	MO	GA		38,400	38,400	1
01995.8 A	037	HAIGH FIELD	ORLAND	CA	GA		38,184	38,184	1
03489.1 A	X26	SEBASTIAN MUNICIPAL	SEBASTIAN	FL	GA		38,000	38,000	1
05002.3 A	SAR	SPARTA COMMUNITY-HUNTER FIELD	SPARTA	IL	GA		37,855	41,455	1
00146. A	AUO	AUBURN-OPELIKA/ROBERT G PITTS	AUBURN	AL	GA		37,800	37,800	1
17284.1 A	5N8	CASSELTON REGIONAL	CASSELTON	ND	GA		37,707	769,730	1
02294.6 A	006	NEW	SHINGLETOWN	CA	GA		37,650	37,650	1
19405.4 A	3S9	CONDON STATE	CONDON	OR	GA		37,357	574,200	1
03091. A	X47	FLAGLER COUNTY	BUNNELL	FL	GA		37,000	37,000	1
03083. A	BKV	HERNANDO COUNTY	BROOKSVILLE	FL	GA		36,775	329,286	1
00806.02 H		NEW	TEMPE	AZ	GAH		36,424	36,424	1
25148.01 A	U22	HALLS CROSSING	GLEN CANYON NATL REC	AUT	GA		36,375	36,375	1
06941. A	K95	ULYSSES	ULYSSES	KS	GA		36,000	36,000	1
14978. A		ONTARIO COUNTY	CANADAIGUA	NY	GA		36,000	36,000	1
04786. A	C75	MARSHALL COUNTY	LACON	IL	GA		36,000	396,000	1
04305.1 A	U11	REXBURG-MADISON COUNTY	REXBURG	ID	GA		36,000	36,000	1
19487. A	LGD	LA GRANDE MUNICIPAL	LA GRANDE	OR	GA		36,000	40,747	1
18874.3 A		NEW	CLAREMORE	OK	GA		36,000	36,000	1
19143. A	OKM	OKMULGEE MUNICIPAL	OKMULGEE	OK	R	M	36,000	36,000	1

24780. A	F39	GRAYSON COUNTY	SHERMAN/DENISON	TX	GA		36,000	36,000	1
ME405		MONTEREY BAY METROPOLITAN AREA		CA			36,000	36,000	1
26014.01 A	5M2	MECKLENBURG-BRUNSWICK REGIONAL	SOUTH HILL	VA	GA		35,981	38,691	1
19[illegible]. A	5F2	DOWNTOWN AIRPARK	TULSA	OK	GA		35,820	35,820	1
01[illegible]1.1 A	040	CLOVERDALE MUNICIPAL	CLOVERDALE	CA	GA		35,730	35,730	1
00665. A	P52	COTTONWOOD MUNICIPAL AIRPORT	COTTONWOOD	AZ	GA		35,710	688,724	2
19883. A	N13	BLOOMSBURG MUNICIPAL	BLOOMSBURG	PA	GA		35,700	705,700	1
00880. A	BVX	BATESVILLE REGIONAL	BATESVILLE	AR	GA		35,627	35,627	1
11197. A	CRX	ROSCOE TURNER	CORINTH	MS	GA		35,294	996,991	3
22415. A	BMT	BEAUMONT MUNICIPAL	BEAUMONT	TX	GA		35,262	35,262	1
24067.1 A		CLOVER FIELD	PEARLAND	TX	RP	M	35,100	35,100	1
11618. A	M20	MYERS PARK MEMORIAL MUNICIPAL	CARTHAGE	MO	GA		35,010	35,010	1
06818. A	53K	OSAGE CITY MUNICIPAL	OSAGE CITY	KS	GA		34,650	34,650	1
00653. A	032	CHINLE	CHINLE	AZ	GA		34,372	34,372	1
00811.12 A		NEW	TUBA CITY	AZ	GA		34,372	34,372	1
27364.1 A	MDZ	TAYLOR COUNTY	MEDFORD	WI	GA		34,200	513,000	1
02434. A	046	WEED	WEED	CA	GA		34,020	34,020	1
21497. A	2G9	SOMERSET COUNTY	SOMERSET	PA	GA		34,000	291,789	1
16689. A	EDE	EDENTON MUNICIPAL	EDENTON	NC	GA		33,954	383,954	1
25028. A	T47	KICKAPOO DOWNTOWN AIRPARK	WICHITA FALLS	TX	RP	S	33,659	1,033,659	1
17932.1 A	14G	FREMONT	FREMONT	OH	GA		33,300	36,000	1
06199. A	MUT	MUSCATINE MUNICIPAL	MUSCATINE	IA	GA		32,310	32,310	1
01429. A	022	COLUMBIA	COLUMBIA	CA	GA		32,240	325,191	1
19505. A	933	CITY-COUNTY	MADRAS	OR	GA		32,175	32,175	1
02032. A	PRB	PASO ROBLES MUNICIPAL	PASO ROBLES	CA	GA		32,040	32,040	1
00672.54 A	E60	ELOY MUNICIPAL	ELOY	AZ	GA		31,870	31,870	1
06540. A	CFV	COFFEYVILLE MUNICIPAL	COFFEYVILLE	KS	GA		31,860	31,860	1
03646. A	DNL	DANIEL FIELD	AUGUSTA	GA	GA		31,844	127,160	1
24067.22 A	SPX	HOUSTON GULF	HOUSTON	TX	GA		31,500	31,500	1
25279.01 A	74V	ROOSEVELT MUNICIPAL	ROOSEVELT	UT	GA		31,400	31,400	1
23287. A	ABI	ABILENE REGIONAL	ABILENE	TX	P	N	31,116	342,267	1
18835.1 A	3F7	JONES MEMORIAL	BRISTOW	OK	GA		31,050	31,050	1
03267. A	ISM	KISSIMMEE MUNICIPAL	KISSIMMEE	FL	GA		30,820	121,148	1
24804. A	T69	SAN PATRICIO COUNTY	SINTON	TX	GA		30,591	30,591	1
04886. A	I02	MT. CARMEL MUNICIPAL	MT. CARMEL	IL	GA		30,508	110,851	1
19414.1 A	77S	HOBBY FIELD	CRESWELL	OR	GA		30,000	630,000	1
19430.13 A		NEW ENTERPRISE	ENTERPRISE	OR	GA		30,000	30,000	1
11247. A	GWO	GREENWOOD-LEFLORE	GREENWOOD	MS	GA		30,000	31,500	1
01971.7 A	L52	OCEANO	OCEANO	CA	GA		29,970	29,970	1
00590. A	08A	WETUMPKA MUNICIPAL	WETUMPKA	AL	GA		29,756	161,978	1
22210. A	CUB	COLUMBIA OWENS DOWNTOWN	COLUMBIA	SC	R	S	29,699	29,699	1
20069.11 A	11D	CLARION COUNTY	CLARION	PA	GA		29,584	260,884	1
26743. A		NEW	MARLINTON	WV	GA		29,526	54,000	1
00745. A	P20	PARKER MUNICIPAL	PARKER	AZ	GA		29,517	29,517	1
26098.1 A	74S	ANACORTES	ANACORTES	WA	GA		29,507	226,578	1
19215. A	H45	SEMINOLE MUNICIPAL	SEMINOLE	OK	GA		29,429	92,751	1
05424. A	3LP	LA PORTE MUNICIPAL	LA PORTE	IN	GA		29,374	574,156	1
11323. A	MBO	BRUCE CAMPBELL FIELD	MADISON	MS	GA		28,811	28,811	1
04722. A	HSB	HARRISBURG-RALEIGH	HARRISBURG	IL	GA		28,800	28,800	1

02532. A	1V6	FREMONT COUNTY	CANON CITY	CO	GA		28,260	28,260	1
04288. A	PIH	POCATELLO MUNICIPAL	POCATELLO	ID	CS	N	27,914	58,500	1
00804. A	4E0	TAYLOR	TAYLOR	AZ	GA		27,318	27,318	1
06476. A	K59	AMELIA EARHART	ATCHISON	KS	GA		27,000	27,000	1
11906. A	MHL	MARSHALL MEMORIAL MUNICIPAL	MARSHALL	MO	GA		27,000	27,000	1
R3613		WESTERN NEW YORK REGION		NY			27,000	27,000	1
00302. A	M95	RICHARD ARTHUR FIELD	FAYETTE	AL	GA		27,000	27,000	1
01442. A	004	CORNING MUNICIPAL	CORNING	CA	GA		27,000	27,000	1
00897.1 A	4M1	CARROLL COUNTY	BERRYVILLE	AR	GA		26,820	26,820	1
27747. A	BVG	BUFFALO MUNICIPAL	BUFFALO	WY	GA		26,750	562,250	1
11886. A	MAW	MALDEN MUNICIPAL	MALDEN	MO	GA		26,348	458,424	1
12743. A	GRI	CENTRAL NEBRASKA REGIONAL	GRAND ISLAND	NE	CS	N	25,867	321,857	2
16731.1 A	1A5	MACON COUNTY	FRANKLIN	NC	GA		25,866	284,533	1
14585.01 A	0E8	CROWNPOINT	CROWNPOINT	NM	GA		25,715	592,911	1
12755 A	HSI	HASTINGS MUNICIPAL	HASTINGS	NE	GA		25,200	25,200	1
25926. A	W93	ORANGE COUNTY	ORANGE	VA	GA		25,000	52,000	1
02791.5 A	22B	JOHNNYCAKE	BURLINGTON	CT	GA		24,999	24,999	1
R0810		REGION 10 LEAGUE		CO			24,750	24,750	1
R0812		NORTHWEST COLORADO REGION		CO			24,750	24,750	1
00112.1 A	8A0	ALBERTVILLE MUNICIPAL	ALBERTVILLE	AL	GA		23,241	23,241	1
04178.6 A	U82	COUNCIL MUNICIPAL	COUNCIL	ID	GA		23,237	255,611	1
12253. A	3U6	BAKER MUNICIPAL	BAKER	MT	GA		22,950	22,950	1
00287.1 A	EDN	ENTERPRISE MUNICIPAL	ENTERPRISE	AL	GA		22,850	22,850	1
00710. A	P14	HOLBROOK MUNICIPAL	HOLBROOK	AZ	GA		22,766	22,766	1
07785.5 A		WEST MONROE (NEW)	WEST MONROE	LA	GA		22,734	22,734	1
15203. A	ELM	ELMIRA-CORNING REGIONAL	ELMIRA	NY	P	N	22,702	1,108,004	1
26768. A	MGW	MORGANTOWN MUNICIPAL	MORGANTOWN	WV	CS	N	22,500	22,500	1
26770. A	74D	MARSHALL COUNTY	MOUNDSVILLE	WV	GA		22,162	162,000	1
07194. A	I26	HENDERSON CITY-COUNTY	HENDERSON	KY	GA		21,342	366,935	1
13108. A	1L1	LINCOLN COUNTY	PANACA	NV	GA		21,307	227,557	1
03705.2 A	CTJ	WEST GEORGIA REGIONAL	CARROLLTON	GA	GA		21,259	609,974	1
02522. A	1V5	BOULDER MUNICIPAL	BOULDER	CO	GA		21,049	607,095	2
00376. A	0J6	HEADLAND MUNICIPAL	HEADLAND	AL	GA		20,906	258,113	1
04581. A	C73	DIXON MUNICIPAL CHARLES R WALGREEN FIELD	DIXON	IL	GA		20,856	39,313	1
23836.1 A	F41	ENNIS MUNICIPAL	ENNIS	TX	GA		20,658	170,658	1
21439. A	SEG	PENN VALLEY	SELINSGROVE	PA	GA		20,634	522,632	1
12082.3 A	3WE	WEIBB	ST LOUIS	MO	RP	L	20,475	20,475	1
04059. A	TOC	TOCCOA RG LETOURNEAU FIELD	TOCCOA	GA	GA		20,405	166,783	1
16503. A	6A6	STANLEY COUNTY	ALBEMARLE	NC	GA		20,288	495,962	1
00481.91 A	1A9	AUTAUGA COUNTY	PRATTVILLE	AL	GA		19,800	19,800	1
03262. A	42J	KEYSTONE AIRPARK	KEYSTONE HEIGHTS	FL	GA		19,798	121,537	1
01081. A	M39	INTERMOUNTAIN REGIONAL	MENA	AR	GA		19,685	236,585	1
18905. A	CUH	CUSHING MUNICIPAL	CUSHING	OK	GA		19,411	213,521	1
07152.1 A		NEW	GEORGETOWN	KY	GA		18,717	29,756	1
06760.1 A	8K4	MEADE MUNICIPAL	MEADE	KS	GA		18,000	18,000	1
00447. A	MGM	DANNELLY FIELD	MONTGOMERY	AL	P	S	17,733	1,297,933	1
22432. A	50J	BERKELEY COUNTY	MONCKS CORNER	SC	GA		17,684	265,968	1
80044		STATE OF RHODE ISLAND		RI			17,631	17,631	1
02564.1 A	1V9	BLAKE FIELD	DELTA	CO	GA		17,301	220,000	1

13062. A	GAB	GABBS	GABBS	NV	GA		17,250	17,250	1
22688. A	9D1	GREGORY MUNICIPAL	GREGORY	SD	GA		17,193	265,320	1
04323. A	SMN	SALMON	SALMON	ID	GA		17,178	437,178	1
01569. A	089	FALL RIVER MILLS	FALL RIVER MILLS	CA	GA		17,070	17,070	1
07556. A	HUM	HOUMA-TERREBONNE	HOUMA	LA	GA		16,582	748,526	2
01015. A	HEE	THOMPSON-ROBBINS	HELENA-WEST HELENA	AR	GA		16,348	414,348	1
00251. A	DCU	PRYOR FIELD	DECATUR	AL	GA		16,150	16,150	1
01069.1 A	AGO	MAGNOLIA MUNICIPAL	MAGNOLIA	AR	GA		16,009	80,000	1
22905. A	CKV	OUTLAW FIELD	CLARKSVILLE	TN	GA		15,483	55,800	1
12303.01 A		COLSTRIP (NEW)	COLSTRIP	MT	GA		15,480	15,480	1
03509.1 A	TLH	TALLAHASSEE REGIONAL	TALLAHASSEE	FL	P	S	15,320	613,320	1
00200. A	EUF	WEEDON FIELD	EUFAULA	AL	GA		14,850	14,850	1
13020.1 A	BTY	BEATTY	BEATTY	NV	GA		14,767	14,767	1
00546. A	TOI	TROY MUNICIPAL	TROY	AL	GA		14,740	19,800	1
00827.3 A	E25	WICKENBURG MUNICIPAL AIRPORT	WICKENBURG	AZ	GA		14,585	265,000	1
07101. A	DVK	GOODALL FIELD	DANVILLE	KY	GA		14,508	550,980	2
12360. A	79S	FORT BENTON	FORT BENTON	MT	GA		14,257	14,257	1
08038. A	HUL	HOULTON INTERNATIONAL	HOULTON	ME	GA		14,040	14,040	1
12946.1 A	TQE	TEKAMAH MUNICIPAL	TEKAMAH	NE	GA		13,794	42,794	1
03902. A	MCN	LEWIS B WILSON	MACON	GA	P	N	13,638	150,022	1
07735. A	SHV	SHREVEPORT REGIONAL	SHREVEPORT	LA	P	S	13,297	325,297	1
22444. A	MYR	MYRTLE BEACH AIR FORCE BASE	MYRTLE BEACH	SC	P	N	13,269	481,300	1
27304. A	LSE	LA CROSSE MUNICIPAL	LA CROSSE	WI	F	N	12,921	216,038	1
22665.01 A		EAGLE BUTTE	EAGLE BUTTE	SD	GA		12,783	576,468	1
12308. A	8Q1	CONRAD	CONRAD	MT	GA		12,707	442,178	1
07368. A	SME	SOMERSET-PULASKI COUNTY-J T WILSON FIELD	SOMERSET	KY	GA		12,700	93,114	1
20299. A	9G8	EBENSBURG	EBENSBURG	PA	GA		12,512	449,010	1
26860. A	I18	JACKSON COUNTY	RAVENSWOOD	WV	GA		11,272	62,809	1
08506. A	8W1	CRISFIELD MUNICIPAL	CRISFIELD	MD	GA		11,250	121,500	1
19354. A	AST	PORT OF ASTORIA	ASTORIA	OR	GA		11,091	328,091	1
26417. A	SFF	FELTS FIELD	SPOKANE	WA	H	M	10,813	136,313	1
12623.1 A	AUH	AURORA MUNICIPAL	AURORA	NE	GA		10,679	408,479	1
07312. A	PAH	BARKLEY REGIONAL	PADUCAH	KY	P	N	10,623	375,347	2
10922.1 A	PNM	PRINCETON MUNICIPAL	PRINCETON	MN	GA		10,000	1,510,000	1
07639. A	LA26	MARKSVILLE MUNICIPAL	MARKSVILLE	LA	GA		9,900	299,200	1
22666. A	6V0	EDGEMONT MUNICIPAL	EDGEMONT	SD	GA		9,807	473,057	1
17454. A	06D	BARNES COUNTY MUNICIPAL	VALLEY CITY	ND	GA		9,735	303,930	1
26744. A	MRB	EASTERN WV REGIONAL/SHEPHARD FIELD	MARTINSBURG	WV	GA		9,680	556,753	1
14632.1 A	E26	LEA COUNTY-JAL	JAL	NM	GA		9,585	236,892	1
01794. A	LGB	LONG BEACH-DAUGHERTY FIELD	LONG BEACH	CA	P	S	8,756	4,194,406	1
22993.1 A	GCY	GREENEVILLE MUNICIPAL	GREENEVILLE	TN	GA		8,695	539,284	1
06533. A	1K2	CLAY CENTER MUNICIPAL	CLAY CENTER	KS	GA		8,510	419,112	1
03435. A	PNS	PENSACOLA REGIONAL	PENSACOLA	FL	P	S	8,485	103,485	1
17360. A	HEI	HETTINGER MUNICIPAL	HETTINGER	ND	GA		8,058	123,433	1
15125. A	DSV	DANSVILLE MUNICIPAL	DANSVILLE	NY	GA		7,997	400,660	1
25205.1 A	CNY	CANYONLANDS FIELD	MOAB	UT	GA		7,737	463,165	1
13011.16 A	NV36	AMARGOSA VALLEY (NEW)	LATHROP WELLS	NV	GA		7,688	7,688	1
04191.11 A		GEM COUNTY INDUSTRIAL AIRPARK (NEW)	EMMETT	ID	GA		7,458	22,647	1

16517.5	A	AVL	ASHEVILLE REGIONAL	ASHEVILLE	NC	P	S	7,449	187,449	1
11194.51	A	GTR	GOLDEN TRIANGLE REGIONAL	COLUMBUS	MS	P	N	6,752	318,140	1
07939.	A	1B0	DEXTER REGIONAL	DEXTER	ME	GA		6,169	174,262	1
07295.2	A	CEY	KYLE-OAKLEY FIELD	MURRAY	KY	GA		5,975	182,576	1
15107.	A	H03	CORTLAND COUNTY-CHASE FIELD	CORTLAND	NY	GA		5,850	28,350	1
01512.	A	CA03	BUTTE VALLEY	DORRIS	CA	GA		5,670	5,670	1
01583.	A	CA06	SCOTT VALLEY	FORT JONES	CA	GA		5,490	5,490	1
01645.	A	365	HAPPY CAMP	HAPPY CAMP	CA	GA		5,490	5,490	1
02690.1	A	08V	MONTE VISTA MUNICIPAL	MONTE VISTA	CO	GA		5,200	18,000	1
07080.1	A	AAS	TAYLOR COUNTY	CAMPBELLSVILLE	KY	GA		5,090	169,399	1
06080.	A	EOK	KEOKUK MUNICIPAL	KEOKUK	IA	GA		5,031	270,531	1
53180.1	A	SJU	LUIS MUNOZ MARIN INTERNATIONAL	SAN JUAN	PR	P	M	4,750	186,875	1
06854.	A	PTT	PRATT MUNICIPAL	PRATT	KS	GA		4,713	421,306	1
21233.	A	PSB	MID-STATE	PHILIPSBURG	PA	GA		4,500	202,500	1
07033.3	A	BRY	SAMUELS FIELD	BARDSTOWN	KY	GA		4,463	105,415	1
07022.	A	128	ASHLAND-BOYD COUNTY	ASHLAND	KY	GA		4,116	259,415	1
00700.1	A	GCN	GRAND CANYON NATIONAL PARK	GRAND CANYON	AZ	P	N	3,932	2,042,579	1
21990.	A	OQU	QUONSET STATE	NORTH KINGSTON	RI	GA		2,272	129,895	1
22099.1	A	88J	ALLENDALE COUNTY	ALLENDALE	SC	GA		2,242	104,590	1
05675.1	A	SIV	SULLIVAN COUNTY	SULLIVAN	IN	GA		2,166	102,966	1
03421.	A	28J	KAY LARKIN	PALATKA	FL	GA		2,032	571,031	1
07239.1	A	LOZ	LONDON-CORBIN AIRPORT-MAGEE FIELD	LONDON	KY	GA		1,933	54,092	1
26846.	A	116	KEE FIELD	PINEVILLE	WV	GA		1,919	89,219	1
10127.	A	MKG	MUSKEGON COUNTY	MUSKEGON	MI	P	N	1,661	658,800	1
02762.	A	2V5	WRAY MUNICIPAL	WRAY	CO	GA		1,653	196,000	1
01608.7	A	861	GEORGETOWN	GEORGETOWN	CA	GA		1,644	240,168	1
07850.	A	0B1	COL DYKE FIELD	BETHEL	ME	GA		1,631	46,631	1
26575.	A	CRW	YEAGER	CHARLESTON	WV	P	S	1,361	545,119	1
24955.	A	UVA	GARNER FIELD	UVALDE	TX	GA		1,243	521,243	1
18994.	A	GUY	GUYMON MUNICIPAL	GUYMON	OK	GA		795	747,446	1
08483.4	A	CGE	CAMBRIDGE DORCHESTER	CAMBRIDGE	MD	GA		700	110,333	1
27902.	A	EAN	PHIFER AIRFIELD	WHEATLAND	WY	GA		99	121,500	1
19500.5	A	9S9	LEXINGTON	LEXINGTON	OR	GA		1	189,000	1
27831.	A	LHD	HUNT FIELD	LANDER	WY	GA		1	447,477	1
27878.	A	RKS	ROCK SPRINGS-SWEETWATER COUNTY	ROCK SPRINGS	WY	P	M	1	1,058,538	1
07726.1	A	RSN	RUSTON MUNICIPAL	RUSTON	LA	GA		1	1,387,582	1
00035			VARIOUS LOCATIONS	SANTA FE	NM	GA		1	362,726	1
23657.2	A	ORF	NORFOLK INTERNATIONAL	CORPUS CHRISTI	TX	P	S	1	299,822	1
24693.	A	SJT	MATHIS FIELD	SAN ANGELO	TX	P	N	1	1,058,436	1
				GRAND TOTAL				1,839,946,491	2,767,307,839	2761

SENATOR LAUTENBERG: List for the past five years the distribution of discretionary grants by category.
ANSWER: The listing follows:

Fiscal Years 1984-1988

Airport Category	Discretionary ($ in Thousands)
Primary	$ 1,048,729
Commercial Service	260,715
Reliever	559,857
General Aviation	177,433
System Plans	36,300
Noise*	304,009

*Noise funds are included in Airport Categories

SENATOR LAUTENBERG: In the fiscal year 1989 conference report FAA was directed to allocate discretionary funds to airports of all sizes. Is this being done with your fiscal year 1989 discretionary funds?
ANSWER: Yes. In FY 1988 (and we anticipate similar distributions in FY 1990), we committed 65.8% of discretionary not associated with satisfying the statutory minimums for noise, relievers, system planning, and small commercial service airports to medium, small, and non-hub locations.

SENATOR LAUTENBERG: You state that safety and security are foremost in determining the use of grant funds. Would you indicate for the record safety and security grants for the last 2 fiscal years and to date for 1989?
ANSWER: For fiscal years 1987 and 1988, over $97.4 million was granted for safety and security items required by regulation. Also, over $1.7 million to date was granted for this purpose in fiscal year 1989.

SENATOR LAUTENBERG: Provide for the record a listing of your pending applications for safety and security projects.
ANSWER: The listing is attached.

Pending Safety and Security Applications

AIP Requests including Work Priority A
(Priority A Items are Underlined)

Airport City State	Federal Funds Requested	Work Description
Bates Field Mobile Alabama	$24,300	Acquire security vehicle

Dothan Dothan Alabama	124,066	Acquire aircraft rescue and fire fighting vehicle; relocate security gates
Huntsville-Madison County Huntsville Alabama	1,146,600	Upgrade security fencing; install terminal closed circuit TV monitors; replace aircraft rescue and fire fighting vehicle; acquire security vehicle
International Anchorage Alaska	4,950,000	Construct safety building
International Anchorage Alaska	2,437,500	Install centerline runway and taxiway lighting; runway visual range equipment; construct regulator building
International Juneau Alaska	199,959	Install security fencing and gates; acquire snow removal equipment
International Ketchikan Alaska	2,250,000	Apply porous friction course; overlay taxiway
Drake Field Fayetteville Arkansas	1,740,213	Acquire emergency generator and proximity suits; install security fencing and access road lighting; extend runway safety areas; complete removal and/or light obstructions
Municipal Redding California	343,800	Expand aircraft rescue and fire fighting building and access road
International Miami Florida	1,500,000	Install identification and control access system

International Orlando Florida	303,000	Acquire security and aircraft rescue and fire fighting vehicles and proximity suits
Regional Pensacola Florida	90,000	Modify marking/lighting, Part 139 standards
Sarasota-Bradenton Sarasota Florida	30,000	Install security radios/gate controls
Bloomington-Normal Bloomington Illinois	227,700	Acquire aircraft rescue and fire fighting vehicle
Johnson County Industrial Olathe Kansas	99,000	Acquire aircraft rescue and fire fighting vehicle
Esler Regional Alexandria Louisiana	104,000	Rehabilitate aircraft rescue and fire fighting vehicle
Houma-Terrebonne Houma Louisiana	157,500	Acquire aircraft rescue and fire fighting vehicle
Regional Lafayette Louisiana	408,420	Acquire aircraft rescue and fire fighting equipment; recondition aircraft rescue and fire fighting vehicle
Metropolitan-Wayne County Detroit Michigan	5,997,227	Acquire security equipment:Install identification/computer card access system for employees (Phase II)
Pine Belt Regional Laurel-Hattiesburg Mississippi	328,968	Apply runway porous friction course

Industrial Air Center Roswell New Mexico	681,694	Groove runway; rehabilitate taxiway and apron pavement
Regional Asheville North Carolina	41,800	Acquire security vehicles; miscellaneous safety improvements
New Hanover County Wilmington North Carolina	207,000	Acquire aircraft rescue and fire fighting vehicle
International Philadelphia Pennsylvania	750,000	Install security controlled access system
Greenville-Spartanburg Greer South Carolina	105,944	Acquire aircraft rescue and fire fighting vehicle
International Amarillo Texas	1,789,995	Rehabilitate aircraft rescue and fire fighting vehicle; improve terminal building; construt aircraft rescue and fire fighting hot drill pit
Jefferson County Beaumont/Port Arthur Texas	97,899	Rehabilitate aircraft rescue and fire fighting vehicle
Pounds Field Tyler Texas	315,000	Acquire aircraft rescue and fire fighting vehicle

AIRPORT CONSTRUCTION REQUESTS

SENATOR LAUTENBERG: What new airport construction requests are pending? Are fiscal limitations preventing the awarding of grants to these applicants? If so, please explain. If not, what are the reasons.

ANSWER: The list of pending requests for new airport construction follows. Except for Denver, which is still undergoing environmental review, all unfunded new airport requests are for small general aviation airports. Present AIP levels prevent

immediate funding but we expect to gradually provide some funding to the busier airports in future years.

Preapplications on File for New Airports

	Amounts Requested In Millions
Piedmont, Alabama	$ 2.4*
Circle City, Alaska	4.3
Council 2, Alaska	.3
Wasilla, Alaska	3.8
Tau, America Samoa	2.0
Lake Havasu, Arizona	4.5*
Chemehuevi Valley, Calif.	.4*
Rio Vista, California	3.1*
Denver, Colorado	1,122.0
Hollywood, Florida	39.9
Jupiter, Florida	12.3*
Georgetown, Kentucky	4.1*
Ruston, Louisiana	2.5*
Tallulah, Louisiana	1.5*
Pascagoula, Mississippi	.2*
Yazoo City, Mississippi	.1*
Doniphan, Missouri	.5
Excelsior Spgs/Liberty, Mo.	1.1*
Linn, Missouri	.1
Marshfield, Missouri	1.3
Monet, Missouri	1.3
Sullivan, Missouri	2.1*
Warsaw, Missouri	1.1
Alma, Nebraska	1.0
Nebraska City, Nebraska	.8
Boulder City, Nevada	.6*
Mesquite, Nevada	3.8
Gastonia, North Carolina	8.4
Louisburg, North Carolina	2.3*
Harrisburg, Pennsylvania	.8
Austin, Texas	336.6*
Garland, Texas	1.3*
LaGrange, Texas	1.1*
Waxahachie, Texas	2.9
Monticello, Utah	2.1
Colville, Washington	.4
Spencer, West Virginia	3.3
Total	$ 1,576.3

*Projects started, request partially funded.

AIP FUNDING PROPOSALS

SENATOR LAUTENBERG: Would you indicate for the record how your grant funds will be distributed under your fiscal year 1989 and proposed fiscal year 1990 obligational ceilings? For example, what specific set asides are there for noise, planning, etc., what is the percentage distribution between formula and discretionary, and what

distribution, if any, is there among the various categories of airports, i.e., primary, reliever, general aviation, etc?

ANSWER: The information follows:

FY 1989 AIP FUNDING
($ Millions)

Appropriation Limitation	$ 1,400.0
Primary Airports	597.9
Cargo	42.0
Alaska Supplemental	10.3
States	168.0
Subtotal, Entitlements	818.3
Noise	140.0
Relievers	140.0
Commercial Service	35.0
System Planning	7.0
Capacity/Safety/Noise	93.4
Carryover Entitlements	135.2
Remaining Discretionary	31.1
Subtotal, Discretionary	518.7

AIP FUNDING PROPOSALS
($ Millions)

	Current Formula	w/250.0 Capacity Minimum
Proposed FY 1990 Appropriation Limitation	$1,350.0	1,350.0
Primary Airports	597.9	471.8
Cargo	40.5	32.0
Alaska Supplemental	10.3	10.3
States	162.0	162.0
Subtotal, Entitlements	810.7	676.1
Noise	135.0	135.0
Relievers	135.0	135.0
Commercial Service	33.8	33.8
System Planning	6.8	6.8
Capacity/Safety/Noise/Security	115.4	250.0
Carryover Entitlements	75.0	75.0
Remaining Discretionary	38.5	38.4
Subtotal, Discretionary	539.3	673.9

May not add due to internal rounding
Uses FY 1989 Entitlements and estimated carryover

REMOTE TRANSFER AIRPORTS

SENATOR LAUTENBERG: One concept mentioned in your capacity needs study is "remote transfer airports." What studies have been conducted regarding the feasibility of transfer airports? For example, is it necessary to build new airports, or is there existing under utilized capacity that would serve this purpose?

ANSWER: Our studies indicate that for the immediate future we should concentrate on making improvements to, and efficient use of, existing airports, and consider developing new airports that function in a similar manner. Only in the longer range time frame, at least ten years into the future, do remote transfer airports appear to be feasible.

SENATOR LAUTENBERG: Have the airlines expressed a position on "remote transfer airports?"

ANSWER: We have not received an official airline policy statement on remote transfer airports. In our informal discussions we found the airlines to be interested but skeptical about the concept.

SENATOR LAUTENBERG: According to CBO, Federal grants finance about 20 to 25 percent of airport construction and improvements at large and medium hubs. Would you envision a similar Federal contribution for transfer airports?

ANSWER: Remote transfer airports are still a concept and it is difficult to be specific about financial details. However, it is unlikely that more than 20 to 25 percent of their development could be financed with Federal aid under the current Airport Improvement Program.

LETTERS OF INTENT

SENATOR LAUTENBERG: According to your budget justification (p. 9), during fiscal year 1988 you issued nine letters of intent. How many letters of intent have you issued during fiscal year 1989?

ANSWER: To date, we approved one letter for Dallas-Ft. Worth.

SENATOR LAUTENBERG: Please provide a list of all letters of intent issued to date, including the airport, amount, and annual funding schedule for each.

ANSWER: The following is a list of all approved letters of intent to date:

AIP LETTERS OF INTENT May 16, 1960	(0 Thousands)		LOI COMMITMENTS BY FISCAL YEAR														LOI TOTALS	
	1959		1960		1961		1962		1963		1964		1965		1966			
LOCATION/DATE/WORK	Ent.	Disc	Ent.	Disc	Ent.	Disc	Ent.	Disc	Ent.	Disc	Ent.	Disc	Ent.	Disc	Ent.	Disc	Ent.	Disc
I. Primary Airports																		
Indianapolis Int'l 8/3/59 Construct r/w,t/w	0.0	0.0	0.0	7,000.0	2,000.0	2,000.0	2,000.0	1,000.0									4,000.0	10,000.0
Rockville Metro. 4/23/59 Construct r/w 28/10L	2,000.0	0.0	2,000.0	9,000.0	2,000.0	2,000.0	2,000.0	2,000.0									11,400.0	12,000.0
Greater Cincinnati 6/2/59 Construct r/w	2,100.0	0.0	2,100.0	9,000.0	2,100.0	4,000.0	2,100.0	4,000.0									12,500.1	30,000.0
Austin Bland 7/9/59 Const. new apt.	0.0	10,000.0	0.0	10,000.0	2,000.0	10,000.0	2,000.0	10,000.0									7,000.0	40,000.0
Orlando Int'l 6/9/59 Rec ap/imprvmnt r/w	372.0	0.0	2,007.0	4,690.0	2,006.0	4,690.0	2,006.0	4,000.0									14,790.0	14,000.0
John Wayne/Orange Co. 6/27/59 RWY,T/W,Road/Drainage	0.0	000.0	0.0	2,000.0	0.0	2,000.0	0.0	2,191.0									0.0	10,191.0
Dallas-Ft. Worth 12/15/59 Aprons/Taxiways			0.0	12,000.0	0.0	12,000.0	0.0	12,000.0	0.0	12,000.0	0.0	12,000.0	0.0	12,000.0	0.0	12,000.0	0.0	120,000.0
Total Primary	4,572.0	10,000.0	6,012.0	51,690.0	17,211.0	39,690.0	17,211.0	39,220.0	0.0	12,000.0	0.0	12,000.0	0.0	12,000.0	0.0	12,000.0	40,012.1	200,119.0
II. Sailover Airports																	0.0	0,300.1
Pittsburgh City 6/17/59 Complete airport, Const. r/w, t/w	0.0	2,120.7	0.0	2,120.7	0.0	2,120.7											0.0	4,017.7
Cuyahoga Co/Cleveland-Hopkins 6/24/59 Construct r/w	0.0	1,000.0	0.0	1,000.0	0.0	1,012.7											0.0	37,000.0
DuPage Co. 8/25/59 Construct r/w's	0.0	10,000.0	0.0	9,000.0	0.0	9,000.0	0.0	9,000.0									0.0	47,997.0
Total Sailover	0.0	10,120.7	0.0	12,120.7	0.0	12,740.4	0.0	9,000.0										
Total All Approvals	4,572.0	24,120.7	6,012.0	64,000.7	17,211.0	52,300.4	17,211.0	48,220.0	0.0	12,000.0	0.0	12,000.0	0.0	12,000.0	0.0	12,000.0	40,012.1	201,119.9

LETTERS OF INTENT

SENATOR LAUTENBERG: Is it your intent to use both formula and discretionary funds to reimburse the airport operators for these letters of intent?

ANSWER: Yes. Both entitlement and discretionary are being used in letters of intent funding plans.

SENATOR LAUTENBERG: Have you established or do your intend to establish a maximum total limit for such letters?

ANSWER: No specific maximum has been set but, to allow future year fund availability, we are restructuring future year discretionary funding of letters of intent to approximately half of the capacity fund amount expected in a future year.

SENATOR LAUTENBERG: What criteria do you use to determine which airports will be issued letters of intent?

ANSWERS: To be eligible for a letter of intent, an airport must be a primary or a reliever airport and the proposed project must result in significant enhancement of system-wide airport capacity. The project must also meet the criteria developed for the special system capacity set-aside established in the 1987 Act. This criteria is based on a number of factors including airport activity, aircraft delay, connecting passenger proportion, project cost/benefit consideration, and the airport sponsor's financial commitment to enhancing airport capacity.

SENATOR LAUTENBERG: Under section 334 of the fiscal year 1989 Transportation Appropriations Act, you are required to submit letters of intent in excess of $10 million to the appropriations and authorizing committees of the House and Senate. Why haven't we received any such letters?

ANSWER: We are now coordinating approval of two new letters and an increase to one existing letter. These were sent to Congress in the past few days.

NEW AIRPORTS

SENATOR LAUTENBERG: In the budget request, special consideration was given to the Denver region's airport request. Why?

ANSWER: The city and county of Denver have scheduled opening of the New Denver Airport for the spring of 1993. The FAA must be responsive and provide the F&E funds in an expedited manner in order to install and commission facilities and services required to support the scheduled opening of the airport.

SENATOR LAUTENBERG: List the expected improvements by safety delay and capacity measures.

ANSWER: Arrival delays can be expected to improve by 4 percent systemwide, 16 percent with interconnecting airports, and 40-60 percent at Denver. The new airport at Denver will be able to increase capacity operations from 28-32 per hour to 134-143 per hour when weather conditions restrict the airport to a one-runway configuration. An adequate level of safety will be maintained whether or not the new Denver airport is built. The primary purposes of the new airport are to increase capacity, reduce delay, and relieve the aircraft noise problems in residential areas near the existing Stapleton International Airport.

SENATOR LAUTENBERG: No new airport has been built since the early 1970s. Other than Denver, what Regions are in need of new airports, and why?

ANSWER: A new airport, Southwest Florida Regional, has been developed in Fort Myers to serve air carriers, and a number of new general aviation airports have been built since 1974, when Dallas/Ft. Worth International Airport was completed. Many of the major metropolitan areas, particularly on the east and west coasts, will need additional air carrier airports by the turn of the century. The airports will be needed to accommodate the 100% increase in passenger enplanements that is forecast during the next 10 years. These airports may be entirely new or they may be conversions from existing general aviation or military airfields. Planning studies are underway in a few communities to select airport sites, including Chicago, Minneapolis, and San Diego. We believe that the need for major new airports is considerably greater, involving approximately 12 major cities.

SENATOR LAUTENBERG: Your draft "FAA Aviation Forecasts, Fiscal Years 1989-2000" of March 1989 indicates that the number of airports will increase by 253 between 1989-1990 and another 128 between 1990 and 1995. However, in New Jersey, the number of airports has actually been declining. Where are these airports being constructed?

ANSWER: The numbers referred to are apparently a restatement of the recommendations in the National Plan of Integrated Airport Systems (NPIAS). The 1986 edition of the NPIAS recommended the construction of 466 new airports by 1995. Most would be in smaller communities, but 64 new reliever airports and 4 new primary commercial service airports would be in metropolitan areas.

SENATOR LAUTENBERG: What type of airports will they be?

ANSWER: Most of the new airports (387) would be small general aviation airports, usually to replace substandard airports that cannot be improved or expanded. There would be 64 new reliever airports to serve general aviation in metropolitan areas, 11 small commercial service airports and 4 large primary airports serving air carriers.

SENATOR LAUTENBERG: How many will serve air carrier operations?

ANSWER: Fifteen of the proposed 466 new airports would serve air carrier operations.

NEW DENVER AIRPORT

SENATOR LAUTENBERG: You are requesting over $102 million as the first increment of funding for facilities and equipment at a new airport proposed for the Denver area. According to your request, the $102 million will represent about two-thirds of the total funding requirement. Does the $156.4 million represent the total facilities and equipment requirement?

ANSWER: No. Additional requirements to support the transition of operations from Stapleton to the New Denver Airport will raise the budget to approximately $190 million total to support the phase I airport configuration. Most of this addition will be in future year's funding.

SENATOR LAUTENBERG: Will you continue to account for all additional facilities and equipment expenditures in this separate account for the airport?

ANSWER: Yes, we will use the New Denver Airport line item to budget for the establishment and commissioning of all FAA facilities and equipment associated with the project.

SENATOR LAUTENBERG: Have all environmental impact issues been resolved so that the project can proceed without delay?

ANSWER: No. A large number of issues were raised during the comment period on the draft Environmental Impact Statement (EIS) review period, which ended April 21, 1989. These issues are under review currently by the FAA, in consultation with the city and county of Denver, and others.

SENATOR LAUTENBERG: If not, when do you expect that they will be resolved?

ANSWER: We expect that all issues will be sufficiently resolved by mid-June to allow preparation of the final EIS for processing.

SENATOR LAUTENBERG: When will construction actually start?

ANSWER: This will be determined by the city and county of Denver, but should not proceed sooner than issuance of a record of decision (ROD) by the FAA, now projected in the latter half of August. (The ROD cannot be issued sooner than 30 days after filing of the approved final EIS with the EPA and placing a notice of this filing in the Federal Register.)

NEW DENVER AIRPORT CONTRACT AWARD

SENATOR LAUTENBERG: When do you expect to award contracts for those items included in this year's request?

ANSWER: Approximately 40 contracts will be awarded for the establishment of FAA facilities associated with the new airport. The majority of these contracts are expected to be awarded in the second or third quarter of FY 1990. This is predicated on the successful completion of the environmental review process.

SENATOR LAUTENBERG: According to your documents, $62.5 of the $102.2 million request is for regional support. How much of the $62.5 million is for FAA in-house personnel, and how much will be contracted?

ANSWER: Personnel, compensation and benefits for the New Denver Airport Project have been budgeted in another account. The $62.5 million will be used for contract payments, engineering, construction, and installation. FAA flight check will also be paid for out of the monies allotted.

SENATOR LAUTENBERG: How many regional contracts are planned, and what are the estimated contract dates?

ANSWER: Approximately 40 contracts will be awarded for the establishment of FAA facilities associated with the new airport. The majority of these contracts are expected to be awarded in the second or third quarter of FY 1990. This is predicated on the successful completion of the environmental impact process.

SENATOR LAUTENBERG: Have requests for proposals been issued on these regional contracts?

ANSWER: No. Requests for proposals will not be issued until

funding and project authorizations have been approved.

SENATOR LAUTENBERG: The federal share of construction costs at most hubs is about 20 percent. What is the anticipated federal share for the new Denver airport?

ANSWER: The FAA is very supportive of the new airport and will maximize federal grant levels. The FAA, however, does not use a rule-of-thumb in determining funding participation levels. Decisions on funding for a new Denver airport will depend on AIP fund availability, competing demands elsewhere in the airport system, and the capability of the sponsor to self-finance.

SENATOR LAUTENBERG: How much of the federal share would you provide from your fiscal year 1990 airport grant budget request, and do you intend to issue a letter of intent for the balance of the federal share? If so, what would the fund schedule be for fiscal years 1991, 1992, and 1993? If not, what impact would this have on Denver's ability to move forward with this project?

ANSWER: We have not yet developed a funding level for Denver for FY 1990. No funding decisions will be made until the environmental impact statement has been approved by the FAA and until AIP appropriation limitations are established for FY 1990.

The Denver request, once environmental actions are complete, would be an excellent candidate for a Letter of Intent (LOI). The LOI could be designed to span several years, even beyond FY 1993, to maximize the development eligible for AIP assistance. Levels of funding for the LOI in FY 1991 and beyond have not yet been established.

If no LOI is issued, the city and county of Denver will have to assess their capability to move forward without a guarantee that maximum Federal share will be forthcoming.

SENATOR LAUTENBERG: What is the source of the non-federal funding for this airport? Do you believe this has viable financing?

ANSWER: Airports use a variety of approaches to finance airport construction. The most common for large projects at major airports is to rely on revenue bonds. State, county, and local contributions are another source of non-Federal assistance. In litigation brought by Continental and United, the Federal District Court upheld Denver's right to use income from concessions at Stapleton to pay for the new airport.

FAA will not fund the project unless Denver is able to assure that Denver will have sufficient funds to pay for the non-Federal share of project costs.

ACCIDENTS, FATALITIES, AND RATES

SENATOR LAUTENBERG: Please update the tables found on pages 996-1002 of Senate Hearings 100-853.

ANSWER: See the attached tables.

TABLE 1
ACCIDENTS, FATALITIES, AND RATES
AIR CARRIERS AND GENERAL AVIATION
1988 (PRELIMINARY DATA)

	Accidents		Total Fatalities	Aircraft Hours Flown	Departures	Accident Rates: Per 100,000 Aircraft Hours		Accident Rates: Per 100,000 Departures	
	Total	Fatal				Total	Fatal	Total	Fatal
Air Carriers Operating Under 14 CFR 121									
Scheduled @	33	3	285	10,199,000	7,200,000	0.314	0.020	0.444	0.028
Nonscheduled	2	0	0	534,800	288,800	0.374	0.0	0.693	0.0
Air Carriers Operating Under 14 CFR 135									
Scheduled #	19	2	21	2,018,000	2,800,000	0.942	0.099	0.679	0.071
Nonscheduled	103	29	58	2,890,000	*	3.56	1.00	--	--
General Aviation +	2357	450	796	29,350,000	*	8.03	1.53	--	--

Exposure data estimate source: Federal Aviation Administration (FAA).

@ One suspected sabotage accident excluded from total and fatal accident rates.

Rates are based on all accidents, including those involving operators not reporting traffic data to the Research and Special Programs Administration (RSPA).

* Data not available.

+ Includes accidents involving U.S. registered civil aircraft flown under rules other than 14 CFR 121 and 14 CFR 135.

TABLE 2
ACCIDENTS, FATALITIES, AND RATES
U.S. AIR CARRIERS OPERATING UNDER 14 CFR 121
ALL NONSCHEDULED SERVICE
(AIRLINES *)
1978 - 1988

Year	Accidents		Fatalities		Aircraft Miles Flown@	Aircraft Hours Flown@	Departures@	Accident Rates@ Per Million Aircraft Miles		Per 100,000 Aircraft Hours		Per 100,000 Departures	
	Total	Fatal	Total	Aboard				Total	Fatal	Total	Fatal	Total	Fatal
1978	20	5	160	158	2,520,165,000	6,031,743	5,015,939	0.008	0.002	0.332	0.083	0.399	0.100
1979	23	4	351	348	2,791,120,000	6,713,094	5,399,652	0.008	0.001	0.343	0.060	0.426	0.074
1980	15	0	0	0	2,928,955,000	7,069,481	5,567,044	0.005	0.0	0.212	0.0	0.269	0.0
1981	25	4	4	2	2,811,348,000	6,834,140	5,429,342	0.009	0.001	0.366	0.059	0.461	0.074
1982	16	4	234	222	2,806,885,000	6,897,770	5,162,346	0.005	0.001	0.224	0.045	0.291	0.058
1983	22	4	15	14	2,929,909,000	6,914,969	5,235,262	0.008	0.001	0.318	0.058	0.420	0.076
1984	13	1	4	4	3,258,910,000	7,736,037	5,666,076	0.004	0.000	0.168	0.013	0.229	0.018
1985	17	4	197	196	3,432,753,000	8,265,332	6,068,895	0.005	0.001	0.206	0.048	0.280	0.066
1986	21	2	5	4	3,868,852,000	9,451,541	6,973,927	0.005	0.000	0.212	0.011	0.287	0.014
1987	34	4	231	229	4,149,280,000	10,009,387	7,169,642	0.008	0.001	0.330	0.030	0.460	0.042
1988P	33	3	285	274	4,168,080,000	10,199,000	7,200,000	0.008	0.000	0.314	0.020	0.444	0.028

P Preliminary data.

* Includes accidents involving deregulated all cargo air carriers and commercial operators of large aircraft when these accidents occurred during 14 CFR 121 operations.

@ Source of estimate: FAA.

& The following suicide/sabotage cases are included in "Accidents" and "Fatalities" but not in "Accident Rates":

Date	Location	Operator	Fatalities Total	Fatalities Aboard
8/11/82	Honolulu, HI	Pan American	1	1
4/02/86	Near Athens, Greece	Trans World	4	4
12/07/87	San Luis Obispo, CA	Pacific Southwest	43	43
12/21/88	Lockerbie, Scotland	Pan American	270	259

TABLE 3
ACCIDENTS, FATALITIES, AND RATES
U.S. AIR CARRIERS OPERATING UNDER 14 CFR 121
ALL NONSCHEDULED SERVICE
(AIRLINES *)
1978 - 1988

Year	Accidents		Fatalities		Aircraft Miles Flown@	Aircraft Hours Flown@	Departures@	Accident Rates Per Million Aircraft Miles		Per 100,000 Aircraft Hours		Per 100,000 Departures	
	Total	Fatal	Total	Aboard				Total	Fatal	Total	Fatal	Total	Fatal
1978	2	0	0	0	88,197,000	202,883	96,351	0.023	0.0	0.986	0.0	2.076	0.0
1979	6	1	3	3	68,018,000	165,817	86,550	0.088	0.015	3.618	0.603	6.932	1.155
1980	4	1	1	0	114,867,000	310,100	162,364	0.035	0.009	1.290	0.322	2.464	0.616
1981	1	0	0	0	109,449,000	291,358	154,337	0.009	0.0	0.343	0.0	0.647	0.0
1982	4	1	1	1	131,628,000	342,355	188,787	0.030	0.008	1.168	0.292	2.119	0.530
1983	2	0	0	0	148,409,000	383,830	209,112	0.013	0.0	0.521	0.0	0.956	0.0
1984	4	0	0	0	169,153,000	429,087	232,776	0.024	0.0	0.932	0.0	1.718	0.0
1985	5	3	329	329	178,264,000	444,562	237,866	0.028	0.017	1.125	0.675	2.102	1.261
1986	3	1	3	3	186,693,000	472,751	246,099	0.016	0.005	0.635	0.212	1.116	0.372
1987	3	1	1	1	223,049,000	490,703	279,454	0.022	0.004	1.019	0.204	1.788	0.358
1988P	2	0	0	0	236,351,000	534,800	288,800	0.008	0.0	0.374	0.0	0.693	0.0

P Preliminary data.

* Includes accidents involving deregulated all cargo air carriers and commercial operators of large aircraft when these accidents occurred during 14 CFR 121 operations.

@ Source of estimate: FAA.

TABLE 4
ACCIDENTS, FATALITIES, AND RATES
U.S. AIR CARRIERS OPERATING UNDER 14 CFR 135
ALL SCHEDULED SERVICE
(COMMUTER AIR CARRIERS *)
1978 - 1988

	Accidents		Fatalities					Accident Rates +					
								Per Million Aircraft Miles		Per 100,000 Aircraft Hours		Per 100,000 Departures	
Year	Total	Fatal	Total	Aboard	Aircraft Miles Flown@	Aircraft Hours Flown@	Departures@	Total	Fatal	Total	Fatal	Total	Fatal
1978	61	14	48	48	226,187,000	1,302,136	1,995,728	0.270	0.062	4.685	1.075	3.057	0.701
1979	52	15	66	66	192,493,000	1,169,921	1,883,705	0.270	0.078	4.443	1.282	2.761	0.796
1980	38	8	37	37	192,200,000	1,175,588	1,776,999	0.198	0.042	3.232	0.681	2.138	0.450
1981	31	9	34	32	193,001,000	1,240,764	1,835,144	0.161	0.047	2.498	0.725	1.689	0.490
1982	26	5	14	14	222,355,000	1,299,748	2,026,691	0.117	0.022	2.000	0.385	1.283	0.247
1983	17	2	11	10	253,572,000	1,510,908	2,328,430	0.067	0.008	1.125	0.132	0.730	0.086
1984	22	7	48	46	291,460,000	1,745,762	2,676,590	0.075	0.024	1.260	0.401	0.822	0.262
1985	21	7	37	36	300,817,000	1,737,106	2,561,463	0.070	0.023	1.209	0.403	0.820	0.273
1986	15	2	4	4	321,629,000	1,738,239	2,663,327	0.047	0.006	0.863	0.115	0.563	0.075
1987	35	12	61	58	350,649,000	1,953,746	2,719,476	0.100	0.034	1.791	0.614	1.287	0.441
1988P	19	2	21	21	363,335,000	2,018,000	2,800,000	0.052	0.006	0.942	0.099	0.679	0.071

P Preliminary data.

@ Source of estimate: FAA.

+ Rates are based on all accidents including some involving operators not reporting traffic data to RSPA.

* Includes accidents involving all-cargo air carriers when those accidents occurred during scheduled 14 CFR 135 operations. All-cargo air carriers no longer meet the RSPA definition for "Commuters". May also include accidents involving carriers whose FAA operating specifications permit scheduled revenue operations under 14 CFR 135, but who have not received a RSPA fitness determination.

TABLE 5
ACCIDENTS, FATALITIES, AND RATES
U.S. AIR CARRIERS OPERATING UNDER 14 CFR 135
NONSCHEDULED OPERATIONS
(ON-DEMAND AIR TAXIS)
1978 - 1988

	Accidents		Fatalities			Accident Rates Per 100,000 Aircraft Hours	
Year	Total	Fatal	Total	Aboard	Aircraft Hours Flown@	Total	Fatal
1978	198	54	155	152	3,545,753	5.58	1.52
1979	160	30	77	73	3,684,321	4.34	0.81
1980	171	46	105	101	3,617,724	4.73	1.27
1981	157	40	94	92	2,895,827	5.42	1.38
1982	132	31	72	72	3,256,763	4.05	0.95
1983	141	27	62	57	2,574,883	5.48	1.05
1984	146	23	52	52	3,079,007	4.74	0.75
1985	152	33	76	75	2,782,696	5.46	1.26
1986	116	31	65	61	2,913,358	3.98	1.06
1987P	98	29	64		2,877,002	3.41	1.01
1988P	103	29	58		2,890,000	3.56	1.00

P Preliminary data.

@ Source of estimate: FAA.

TABLE 6
ACCIDENTS, FATALITIES, AND RATES
U.S. GENERAL AVIATION *
1978 - 1988

Year	Accidents Total	Accidents Fatal	Fatalities Total	Fatalities Aboard	Aircraft Hours Flown	Accident Rates@ Per 100,000 Aircraft Hours Total	Accident Rates@ Per 100,000 Aircraft Hours Fatal
1978	4216	719	1356	1398	34,887,000	12.08	2.06
1979	3818	631	1221	1203	38,641,000	9.88	1.63
1980	3590	618	1239	1230	36,402,000	9.86	1.69
1981	3500	654	1282	1261	36,803,000	9.51	1.78
1982	3233	591	1187	1171	32,095,000	10.06	1.84
1983	3075	555	1064	1057	31,048,000	9.90	1.79
1984	3010	543	1039	1018	31,510,000	9.54	1.72
1985	2741	497	950	939	30,590,000	8.95	1.62
1986	2582	473	965	874	29,317,000	8.81	1.61
1987P	2470	435	817		29,208,000	8.45	1.49
1988P	2357	450	796		29,350,000	8.03	1.53

P Preliminary data.

@ Source of estimate: FAA.

* All operations other than those conducted under 14 CFR 121 or 14 CFR 135.

& Suicide and sabotage accidents excluded from rates as follows:
Total - 1978 (2), 1980 (1), 1982 (3), 1983 (1), 1984 (3), 1985 (3), 1987 (1)
Fatal - 1978 (2), 1980 (1), 1984 (2), 1985 (2), 1987 (1)

TABLE 7

FATAL ACCIDENTS AND FATALITIES
U.S. AIR CARRIERS OPERATING UNDER 14 CFR 121
ALL SCHEDULED SERVICE
(AIRLINES)
1988 (PRELIMINARY DATA)

Date	Location	Operator	Service	Aircraft	Fatalities Pssgr	Fatalities Crew	Fatalities Other	Fatalities Total	Total Aboard	Reported Type of Accident
4/28	Maui, HI	Aloha Airlines	Psgr	B-737-200	0	1	0	1	95	Portion of top of fuselage tore away in flight.
8/31	Dallas, TX	Delta Airlines	Psgr	B-727-232	12	2	0	14	108	Crashed shortly after takeoff.
12/21	Lockerbie, Scotland	Pan American	Psgr	B-747-100	244	15	11	270	259	Suspected sabotage

TABLE 8
FATAL ACCIDENTS AND FATALITIES
U.S. AIR CARRIERS OPERATING UNDER 14 CFR 135
ALL SCHEDULED SERVICE
(COMMUTER AIR CARRIERS)
1988 (PRELIMINARY DATA)

Date	Location	Operator	Service	Aircraft	Fatalities Pssgr	Fatalities Crew	Fatalities Other	Fatalities Total	Total Aboard	Reported Type of Accident
1/19	Bayfield, CO	TransColorado	Psgr	Fairchild-Swearingen SA-227AC	7	2	0	9	17	Crashed during an instrument approach.
2/19	Cary, NC	American Eagle	Psgr	Fairchild-Swearingen SA-227AC	10	2	0	12	12	Crashed shortly after takeoff.

AVIATION SAFETY INDICATORS

SENATOR LAUTENBERG: About 2 years ago, the Committee directed FAA to develop a standard set of safety indicators sos that we could finally have an agreed-upon method of measuring aviation safety. Last year you told this Committee that, in response to its direction, the goundwork had been laid and that an independent study would be made. You said that you had selected highly qualified contractors to do the study. Because of widespread interest in this matter and other considerations, there was a need for complete impartiality, that is why FAA chose not to do the study itself. Now, after $624,000 was spent on the contract, you cancelled it and decided to do the study in-house after all. The Committee was not consulted in this matter. You told the Committee that the contractors you had selected were highly qualified to do the work and that it was essential to have impartiality, so why did you cancel the contract?

ANSWER: The contract for safety indicators work was not continued beyond the first phase as a result of a major reorientation of FAA's organization in the safety analysis area that led to changes in budget priorities and increased agency emphasis on in-house analytical capabilities. In a comprehensive agency reorganization in July 1988, safety was made explicitly the highest agency priority. Reflecting this priority, the Associate Administrator for Aviation Safety was assigned major new responsibilities and now reports directly to the Administrator.

To fulfill his new responsibility for oversight of safety issues throughout the FAA, the Associate Administrator needed more analytical support than had existed in the past. With the strengthening of this analytical support, it became both possible and desirable to closely coordinate the development of safety indicators with related activities inside the agency, such as the establishment of the National Aviation Safety Data Center, which will focus on the improvement of aviation safety data.

Because of widespread Congressional and industry interest in safety indicators, we intend to work closely with members of the aviation community in the development of safety indicators. For example, on April 6, 1988 we held a Safety Indicators Workshop, which was attended by about 75 persons from the FAA, other government agencies, and private industry. In that workshop, organizations in the aviation community were encouraged to designate liaisons to the Safety Indicators Program. We believe that by working closely with the aviation community, we will be able to retain objectivity and resolve the obvious differences of opinion regarding the suitability and validity of potential safety indicators.

SENATOR LAUTENBERG: Was the $624,000 wasted?

ANSWER: No, it was not wasted. The money was used for the funded phase of the safety indicators contract (totalling $693,000) to support a comprehensive review of literature concerning air traffic control and flight operations safety issues, and to interview aviation experts in government and the private sector. The reviews and interviews further emphasized the complexities and difficulties in developing valid safety indicators and the need for a careful, thorough development effort. The contractor's work is thus serving as useful reference material for our continuing safety indicators work.

SENATOR LAUTENBERG: The Committee was not interested in trying to predict the level of safety. It simply wanted a standard, acceptable means to measure the current condition. What are the objectives of the in-house effort and how are they different from those of the contractor?

ANSWER: The objectives of the in-house effort remain the same as those of the contractor. The first objective is to develop a set of indicators that will measure the safety performance of the national aviation system while at the same time being sensitive enough to system changes to remain valid over time. Indicators of the safety performance of the FAA's air traffic operations will be developed first, followed by the development of indicators for flight operations.

The second objective is to develop "leading indicators" of safety that will assist in identifying safety problems in their incipient stages of development and, thereby, provide sufficient lead time for implementation of remedial actions.

AVIATION SAFETY INDICATORS COSTS

SENATOR LAUTENBERG: What are the costs and timeframes involved?

ANSWER: The Safety Indicators Program is estimated to cost about $1.6 million during FY 1990 and about $8.7 million over the next 5 years. The costs include technical support (through interagency agreements and/or other contractual instruments) in the form of statistical/data analyses, the development of analytical techniques, expert systems consultants, and systems development efforts. The current schedule calls for the development, by September 1989, of a structure of indicator categories which will cover air traffic and flight operations. Safety indicators in selected air traffic areas are scheduled for development by March 1990.

SENATOR LAUTENBERG: What is the status of funding and staffing for the project?

ANSWER: The FAA has requested $1.6 million in the FY 1990 budget in support of the Safety Indicators Program. Funds will also be requested in FY 1991 to continue system development and implementation. Currently, the Safety Indicators Division has two full-time permanent positions devoted entirely to the Safety Indicators Program; an additional position is being requested in FY 1990.

SENATOR LAUTENBERG: What are the studies underway for the Transportation Systems Center that the safety indicators project will build on? Will those studies/contracts have to be modified to address the needs of the safety indicators project? If so, what is the status of the modifications?

ANSWER: There are two programs at the Transportation Systems Center (TSC) that are relevant to the development of safety indicators. The Air Carrier Analysis Support System (ACAS) is being developed for the Department of Defense to assist it in evaluating the safety and performance of contract carriers. The concepts and analysis techniques used in developing ACAS indices will be among those used in developing safety indicators. Specific ACAS indices are still being refined. The final versions of these indices will be evaluated for their validity and appropriateness for safety indicator use. The systems implementation of ACAS will have a strong influence on the development of an automated system for

safety indicators. TSC's ACAS project managers are currently being consulted concerning their ability to assist the FAA in the safety indicators development work.

The TSC is also performing statistical analyses of the NASIP data base. The results of these analyses may prove useful in developing safety indicators.

SENATOR LAUTENBERG: How will the safety indices that are developed be used?

ANSWER: A standardized set of safety indicators will serve to reduce confusion and controversy about the current level of safety in the national aviation system. Standardized safety indicators will help the Congress, the FAA, members of the aviation community, and the public in their mutual efforts to analyze and address aviation safety issues. Leading indicators of safety will be used to identify or "flag" emerging areas of safety concern so that timely corrective actions can be taken.

LEGISLATIVE CHANGES

SENATOR LAUTENBERG: The President's budget assumes enactment of legislation that would repeal the so-called aviation "tax trigger". With the current balance in the Airport and Airway Trust Fund, why shouldn't taxes be reduced?

ANSWER: FAA believes that system users should pay the full cost of services provided to them. Because large portions of operation and management costs are currently financed from the General Fund, this is not the case. Current tax rates are required to generate sufficient revenues to finance completion of the NAS Plan and pay for an appropriate portion of O&M costs from the Trust Fund. Beyond NAS Plan and O&M requirements, additional resources will be required if we are to provide for increased airport capacity and solve noise related problems in a timely manner.

SENATOR LAUTENBERG: According to recent information provided by the Congressional Budget Office, approximately $5.3 billion of the Trust Fund balance is the result of the so-called "penalty clause". Do you believe this provision should be repealed along with the "tax trigger"?

ANSWER: Yes. FAA believes that system users should pay the full cost of services provided to them. The penalty clause has prevented an appropriate amount of O&M from being financed from the Trust Fund to achieve this goal and is largely responsible for the current Trust Fund Surplus.

Between 1982 and 1989, $5.3 billion for FAA Operations that Congress contemplated would come from the Trust Fund will, instead, be drawn from the General Fund because of the penalty provision. Because that amount stays in the Trust Fund, it earns interest that will total about $1.5 billion over the period. Therefore, since 1982, about $6.8 billion is directly attributable to the penalty provision, nearly equaling the projected $6.9 billion surplus in the Trust Fund at the end of 1989.

MODE C TRANSPONDER RULE

SENATOR LAUTENBERG: Effective July 1989, a new requirement for Mode C transponder equipage goes into effect. If more aircraft are to be tracked by FAA's computers as a result of the new rule, this could put additional demands on the computer capacity at many

terminals. In June 1988, FAA stated that computer systems at larger terminals were adequate to handle the increased work loads imposed by Mode C equipage. Since then, further analysis indicates that capacity may be inadequate at Los Angeles and elsewhere. In December 1988 an alert bulletin issued by FAA's Technical Center indicated that shortfalls in computer capacity should be re-evaluated given that potential resulting data losses are critical to safety. The bulletin also recommended that Mode C equipage requirements be delayed until capacity was augmented. Can you assure the Committee that there are no air traffic control facilities that do not have adequate capacity? If you can't identify the terminals that lack capacity.

ANSWER: Several of the larger Automated Radar Terminal System (ARTS) IIIA facilities such as Dallas/Ft. Worth, Texas have either experienced or project to experience periodic peak traffic conditions that reach the capacity limits of the ARTS. Such peak traffic conditions are the result of routine air traffic growth. The FAA has made some software modifications and is using processing efficiency benefits gained from the New York Terminal Radar Approach Control (TRACON) project to relieve this situation for the short term. As a longer term solution, until ARTS is replaced by AAS, the ARTS IIIA capacity will be increased by the addition of solid state memory as part of the 1988 NAS Plan Interim Support Plan project.

SENATOR LAUTENBERG: Has site specific analysis, not just some general analysis, indicated that computer capacity at terminals is adequate to accommodate requirements from increased number of Mode C equipped uncontrolled aircraft?

ANSWER: Both general and site specific analysis has been conducted to determine potential Mode C equipage track capacity impact to the ARTS IIIA system. While this is a continuing process, the following specific sites have been analyzed: Baltimore, MD; Houston, TX; Ontario, CA; Miami, FL; and Los Angeles, CA. The results of the site specific analysis indicate that the increase in Mode C equipped aircraft as a result of the rule has a negligible impact on the capacity of the ARTS.

SENATOR LAUTENBERG: What was FAA's response to the December 1988 alert bulletin issued by FAA's Technical Center indicating that Mode C equipage requirements could negatively affect computer processing capability?

ANSWER: We are reviewing the alert bulletin and initially question assumptions within that bulletin. In addition, we are implementing target filtering techniques to contain the anticipated additional Mode C equipage requirements. These techniques were implemented successfully at the New York TRACON when they experienced related capacity problems.

SENATOR LAUTENBERG: Is the FAA considering a delay in requiring implementation of the Mode C equipage rule in any terminal control areas?

ANSWER: The FAA is not considering any delay in the Mode C equipage requirements which were established in the rule. However, the FAA is currently considering a joint petition from the Aircraft Owners and Pilots Association, Experimental Aircraft Association, and Helicopter Association International which would replace the "Mode C Veil" with buffers around and below each Terminal Control Area (TCA).

MODE C INTRUDER PROGRAM

SENATOR LAUTENBERG: FAA has decided to provide a safety alert at the larger terminals regarding the loss of separation between controlled and uncontrolled aircraft -- Mode C Intruder. After investigating the crash of an Aero Mexico and a private aircraft at Cerritos, California, the National Transportation Safety Board concluded that this type of alert coulod have averted the accident. FAA provided the Mode C Intruder alerts at all en route centers beginning in September 1988. Why has FAA decided not to provide Mode C Intruder at the 120 smaller ARTS II locations?

ANSWER: The current ARTS IIA systems lack the capacity to accommodate Mode C Intruder software.

SENATOR LAUTENBERG: What capacity enhancements would be necessary to provide Mode C Intruder capability at ARTS II locations, how much would this cost, and how long would it take?

ANSWER: To accommodate Mode C Intruder software, the ARTS IIA would require storage expansion and peripheral processor additions. The estimated cost of these requirements is between $25 and $30 million. It would take about 3 years after project approval to implement the first system and 5 years to complete 122 operational and 6 support systems.

NATIONAL AVIATION INSTITUTE

SENATOR LAUTENBERG: Since your December 1988 report to the Committee which endorsed the establishment of the National Aviation Institute, please provide the Committee with a progress report on the specific assistance provided to the NAI board to date and the additional assistance currently being contemplated in the near term.

ANSWER: NAI is currently in the process of obtaining support from the aviation industry and establishing the organization. Planning for research operations is scheduled for next year. We will continue to work with NAI and give them our utmost support.

NEAR MIDAIR COLLISIONS

SENATOR LAUTENBERG: As you know, I asked the GAO to make a study of the near midair collision problem and what the FAA was doing about it. Their work is not yet complete, but I would like you to address some of their preliminary observations and concerns.

We are told that you do not have the data, and therefore do not analyze these incidents on the basis of the particular sector in which the incident occurred.

Why don't you collect the data on a sector basis?

ANSWER: Data concerning near mid-air collision (NMAC) reports are collected on a geographical location basis in relation to major navigational aids and according to which air traffic facility had control responsibility for the airspace in which the incident occurred. This is sufficient for national and regional review and analysis of trend information. The facility can identify the operating position just by knowing the geographical location and altitude of the incident.

SENATOR LAUTENBERG: Isn't air traffic control based on individual sectors?

ANSWER: Air traffic control is based on the flow of controlled traffic through each controller's area of responsibility whether it be a control sector, operating position, or functional responsibility. In the en route centers, the sector is the basic unit in each area of operation. They are classified as radar, nonradar, and oceanic. In terminal control facilities, the operating position, i.e., departure control, arrival, local, etc., is the functional air traffic control unit.

SENATOR LAUTENBERG: Wouldn't sector data be helpful in examining the problem?

ANSWER: Sector data is useful inside the facility when making local adjustments to airspace. This information is currently available at the local level. At regional and national levels, the geographical location is much more useful for identifying trends and potential problem areas.

RULEMAKINGS -- REGULATORY ACTIVITY -- OTHER

SENATOR LAUTENBERG: What rulemakings are now open?

ANSWER: The FAA currently has close to 200 rulemaking projects underway at the present time. Not all of those projects are in the agency's program of priority rulemaking. Attachment 1 is a list of projects for which resources have been committed. Attachment 2 is a list of nonscheduled projects that will be completed as resources permit.

ATTACHMENT 1

SCHEDULED RULEMAKING PROJECTS

PROJECT NUMBER	TITLE	DATE MAY 26, 1989
ANM-86-041-R	1-G STALL SPEED--BASIS FOR PART 25 COMPLIANCE	
AAS-88-365-P	AAAE/AOCI PETITION - CONTROL OF GROUND VEHICLES	
ANM-86-007-R	ACCESS TO TYPE III EMERGENCY EXITS	
AVS-88-281-R	ADVANCED QUALIFICATION PROGRAM (VOLUNTARY)	
ANM-83-027-R	AIRPLANE CABIN FIRE PROTECTION	
ANM-84-006-R	AIRPLANE JACKING LOADS	
ATO-84-007-R	AIRSPACE RECLASSIFICATION	
ATO-88-017-R	ATC CLEARANCE READBACK	
ATO-83-016-R	BASIC NIGHTTIME VFR WX MINIMUMS	
AVS-86-132-P	BEECH & LORAL SYSTEMS PETITION TO AMEND PART 45	
ANM-87-037-R	BIRD STRIKE DAMAGE ASSESSMENT	
ACE-88-003-R	COMMUTER CATEGORY RULE--DISPOSITION OF COMMENTS	
ANE-83-002-R	COMPOSITE PROPELLERS	
ACE-82-005-R	CRASH-RESISTANT FUEL SYSTEMS	
AVS-87-145-R	CVR/FR REQUIREMENTS	
ANM-88-008-R	DEPRESSURIZATION EVALUATION OF STRUCTURES	
ANM-86-006-R	DESIGN STANDARDS FOR FUEL TANK ACCESS COVERS	
AVS-85-249-R	DESIGNATED ENGINEERING ORGANIZATION	
ACS-89-035-R	DRUG ENFORCEMENT ASSISTANCE	
AVS-87-115-R	DWI/DWU	
ANM-86-014-R	ELECTRICAL & ELECTRONIC SYS. LIGHTNING PROTECTION	
ANE-83-001-R	ELECTRICAL AND ELECTRONIC ENGINE CONTROL SYSTEMS	
AVS-85-348-R	EMERGENCY LOCATOR TRANSMITTER	
ANE-85-002-R	ENGINE FUEL AND INDUCTION SYSTEMS	
APO-89-119-R	ESTABLISHMENT OF ATC TOWER CRITERIA	
ASW-83-017-R	EUROPEAN JAR REQUIREMENTS PROPOSALS	
ACE-88-001-R	EXIT REQUIREMENTS FOR PART 23 AIRPLANES	
AVS-88-127-R	EXIT ROW SEATING	
AVS-83-258-R	EXPANSION OF APPLICABILITY OF SECTION 43.17	
AXR-89-195-R	EXPLOSIVES DETECTION SYSTEM FOR CHECKED BAGS (TNA)	
AVS-84-190-R	FAR UPDATE SUBSEQUENT TO CAB SUNSET (PART 119)	
ACE-82-004-R	FATIGUE REQUIREMENTS	

AVS-86-077-R	FLIGHT ATTENDANT REQUIREMENTS
AEE-89-217-R	FUEL VENTING & EXHAUST EMISSION REQUIREMENTS
ANM-89-005-R	FUEL TANKS AND FUEL LINES
ANM-82-050-R	FUEL SYSTEM FIRE PROTECTION
AVS-86-283-R	GROUND PROXIMITY WARNING SYSTEM
ASW-84-003-R	HELICOPTER INSTRUMENT FLIGHT
ANM-83-022-R	HIGH ALTITUDE OPS--SUBSONIC AIRPLANES
AVS-89-180-R	HIGH ENERGY RADIATED ELECTROMAGNETIC FIELDS
ANM-88-024-R	IMPROVED STANDARDS FOR INTERIOR MATERIALS
AVS-85-265-R	IMPROVED SURVIVAL EQUIP. INADVERTENT WATER LANDINGS
ANM-84-019-R	INDEPENDENT POWER SOURCE FOR PA SYSTEMS
ATO-88-008-R	KETCHIKAN INTERNATIONAL AIRPORT TRAFFIC RULE
ANM-86-008-R	LANDING GEAR AURAL WARNING
AVS-86-271-R	LOCATION OF EMERGENCY EXITS
ANM-87-004-R	LOSS OF ENGINE COWLING
AXR-89-181-R	MAINTENANCE RECORDING REQUIREMENTS
AXR-89-196-R	MANDATORY SECURITY DIRECTIVES SYSTEM
ADS-89-215-R	MINIMUM STANDARDS FOR NAVIGATION SYSTEMS
AVS-84-191-R	MISCELLANEOUS OPERATIONAL AMENDMENTS
ANM-87-010-R	MISCELLANEOUS CHANGES
ASW-85-469-P	NEW ROTORCRAFT EMERGENCY POWER RATINGS
AEE-84-100-R	NOISE CERTIFICATION STOP PRODUCTION
ATO-87-014-R	NON-FEDERAL ATC TOWERS
ASW-84-001-R	OCCUPANT RESTRAINT--NORMAL & TRANSPORT ROTORCRAFT
ANE-85-001-R	ONE-ENGINE-INOPERATIVE RATINGS FOR ROTORCRAFT
ACE-84-012-R	PART 23 REVIEW NOTICE 4 FLIGHT AND AIRFRAME
AVS-88-244-R	PART 61 REVIEW PHASE I
ATO-86-013-R	PART 157 REVIEW
ATO-85-015-R	PART 77 REVISION - OBJECTS AFFECTING NAVIGABLE AIRSPACE
AVS-82-288-R	PART 67 REVIEW
ACE-84-011-R	PART 23 REVIEW NOTICE 3 PROPULSION & SYSTEMS
ACE-84-010-R	PART 23 REVIEW NOTICE 2 (MISC. ISSUES)
AVS-87-271-R	PART 121/135 MEL
ACE-85-006-R	PART 23 REVIEW NOTICE 5
AXR-88-301-R	PARTS 121/135 TRNG, CHECK, CERT., & QUAL. RQMTS.
AXR-89-197-R	PHASEOUT OF X-RAY EQUIPMENT FOR CARRY-ON BAGGAGE
ANM-86-005-R	PRESSURIZED CABINS AND COMPARTMENTS
AVS-83-133-P	PRIMARY CATEGORY AIRCRAFT
AVS-86-230-R	REDELEGATION OF AUTHORITY
AFS-78-303-R	REVISION OF PART 91
AVS-87-190-R	REVISION OF PART 147
ASW-85-006-R	ROTORCRAFT CRASH RESISTANT FUEL SYSTEM
ASW-82-004-R	ROTORCRAFT REVIEW NOTICE 4 AIRFRAME
ACE-87-014-R	SEAT STANDARDS FOR COMMUTER CATEGORY A/C
AVS-88-136-R	SEAT RETROFIT
AFS-89-051-R	SFAR 38 EXTENSION
ASW-86-018-R	SHOULDER HARNESSES FOR SEATS IN ROTORCRAFT
AVS-83-105-R	SIMULATOR TRAINING
AVS-88-162-R	SMOKING ABOARD AIRCRAFT
ANM-82-001-R	SPECIAL REVIEW: TRANSPORT AIRWORTHINESS STANDARDS
AEE-86-012-R	SST NOISE
ANM-83-030-R	STANDARDS FOR APPROVAL OF REDUCED V1 METHODOLOGY
ATO-85-008-R	TRANSPONDER REQ. - OPS INTO U.S. THRU AN ADIZ
ASW-83-006-R	TRANSPORT CATEGORY ROTORCRAFT PERFORMANCE
ASW-83-001-R	TRANSPORT CATEGORY ROTORCRAFT STRUCTURAL FATIGUE
ASW-84-002-R	TURBOSHAFT ENGINE ROTOR BURST PROTECTION
ANM-87-006-R	TYPE & NUMBER OF PAX EMERGENCY EXITS REQ.
AVS-85-127-R	TYPE CERTIFICATION BASIS
ATO-87-008-R	U.S. CONTROL AREA
ANM-86-024-R	UPDATE FLUTTER, VIBRATION & BUFFET REQUIREMENTS
ANM-87-027-R	USE OF INERT GAS IN LIEU OF AIR--TIRE INFLATION

ATTACHMENT 2

UNSCHEDULED RULEMAKING PROJECTS

PROJECT NUMBER	TITLE	DATE MAY 26, 1989
AVS-87-227-R	EXTENSION OF COMPLIANCE DATE FOR SEAT CUSHION FLAMMABILITY	
AVS-88-131-P	ATA-AMENDMENT TO TECHNICAL STANDARD ORDER PROCEDURES	
AVS-88-189-P	AIA-SALE AND DISTRIBUTION OF REPLACEMENT AND MODIFICATION PARTS	
ANM-83-021-R	PROTECTIVE BREATHING EQUIPMENT	
ANM-83-039-R	LOW FUEL QUANTITY INDICATORS	
ANM-87-017-R	CARBON DIOXIDE CONCENTRATION IN CREW AND PASSENGER COMPARTMENTS	
ANM-87-026-R	ALL ENGINE RESTART ENVELOPE	
ANM-88-010-R	DYNAMIC BRAKED ROLL CONDITION	
ANM-88-013-R	DAMAGE TOLERANCE FATIGUE TEST REQUIREMENTS	
ANM-88-018-R	MISCELLANEOUS AMENDMENTS TO PART 25	
ANM-88-020-R	FIRE SAFETY STANDARDS FOR CARGO OR BAGGAGE COMPARTMENTS	
ANM-88-023-R	REVIEW OF ALLOWABLE WEAR LIMITS FOR AIRCRAFT BRAKES	
AVS-81-129-R	PARTS 61, 141, AND 143 REVIEW AND UPDATE (5)	
AVS-83-169-R	AMEND §§ 91.161(C), 91.171, 91.172, AND APP. E AND F OF PART 43	
AVS-83-305-R	INOPERATIVE COMPONENTS OR VISUAL AIDS TABLE	
AVS-83-343-R	FUEL REQUIREMENTS FOR FLIGHT UNDER INSTRUMENT FLIGHT RULES	
AVS-84-063-P	PAMA - REISSUE MECHANIC CERTIFICATE	
AVS-85-031-R	PORTABLE ELECTRONIC DEVICES	
AVS-85-053-R	EXTEND PRIVILEGES OF SECTION 91.169(E) FOR HELICOPTERS	
AVS-85-060-R	EXTENSION OF FLIGHT ENGINEER WRITTEN RESULTS	
AVS-86-102-P	STRONG ENTERPRISES/RELATIVE WORKSHOP PARACHUTE REQUIREMENTS	
AVS-86-156-R	PART 119 RELATED EDITORIAL CHANGES	
AVS-86-180-P	ATA - AUTOMATIC ALTITUDE REPORTING EQUIPMENT	
AVS-86-258-R	IFR OPERATIONS AND DRIFTDOWN PROCEDURES	
AVS-87-084-P	ATA - TO AMEND FOREIGN REPAIR STATION RULES	
AVS-87-097-P	RAA-IMPORT FROM FOREIGN OWNERS OF USED PARTS AND COMPONENTS	
AVS-87-152-R	SECTION 91.79, MINIMUM SAFE OPERATING ALTITUDES	
AVS-87-211-R	FLIGHT ENGINEER TRAINING	
AVS-87-221-R	PART 135 - TRAINING AND CHECKING	
AXR-89-001-R	SPECIAL PURPOSE PILOT CERTIFICATE	
AXR-89-161-R	PROTECTIVE BREATHING EQUIPMENT, SPOT AMENDMENT	
AXR-89-169-P	CULTRERA SAM J	
AXR-89-181-R	MAINTENANCE RECORDING REQUIREMENTS	
AVS-88-167-P	NRA PETITION - TRANSPORTING FIREARMS IN BAGGAGE	
AVS-81-520-P	CIVIL PILOTS FOR REGULATORY REFORM - AIRMAN MEDICAL STANDARDS	
AVS-83-225-P	CHARLES WEBBER-DELETION OF REQUIREMENT FOR MEDICAL CERTIFICATE	
AXR-89-160-P	ANTI-DRUG PROGRAM, SPOT AMENDMENT	
AVS-81-128-R	MISCELLANEOUS AMENDMENTS	
AVS-84-142-R	VARIOUS RULES; DISPOSITION OF COMMENTS	
AVS-88-128-R	AIR CARRIER SELF-EVALUATION PROGRAM	
AXR-89-101-P	RUSH, THOMAS J.	
ATO-85-013-R	FLIGHT PLAN REQUIREMENTS - ADIZ REALIGNMENT	
AXR-89-076-P	ATA/RAA- SAFE TRANSPORTATION OF PASSENGERS WITH DISABILITIES	

RULEMAKING PLAN FOR FY 1990

SENATOR LAUTENBERG: What rulemakings (or notices) are planned for fiscal year 1990?

ANSWER: The FAA plans to continue action on the scheduled projects listed in Attachment 1 to the answer to the previous question. In addition, as resources permit, we will begin work on some of the projects on Attachment 2 to the previous question.

SENATOR LAUTENBERG: List regulatory actions taken for the past 3 years with a brief description.

ANSWER: The following final rules were issued for the period January 1987 through May 1989:

Airworthiness Standards and Operating Rules; Commuter Category Airplane - This amendment adopted certification procedures, airworthiness and noise standards, and operating rules for an additional category of propeller-driven, multi-engine airplane, designated as the commuter category.

Air Traffic Control Radar Beacon System and Mode S Transponder Requirements in the National Airspace System - This amendment established requirements pertaining to the use, installation, inspection, and testing of Air Traffic Control Radar Beacon System and Mode S transponders in U.S.-registered civil aircraft.

Improved Flammability Standards for Materials Used in the Interiors of Transport Category Airplane Cabins - This amendment upgraded the fire safety standards for cabin interior materials in transport-category airplanes.

Designation of Applicable Regulations for the Type Certification and Airworthiness Certification of Special Classes of Aircraft - This amendment established type certification procedures for gliders, airships, and other kinds of aircraft that would be eligible for a standard airworthiness certificate but for which no airworthiness standards had been established.

Flight Recorders and Cockpit Voice Recorders - This amendment required additional flight recorder parameters for airplane type certificated before 1969 operating in scheduled air transportation.

Preflight Assembly of Gliders and Balloons - This amendment discontinued the classification of glider and balloon assembly as preventive maintenance, added training requirements for pilots in the preflight assembly of gliders and balloons, and added preflight assembly and post-assembly inspections to the preflight responsibilities for glider and balloon pilots.

Air Traffic Control Tower Operators: Medical Standards - This amendment excepted air traffic control tower operators who are employed by the U.S. military from the requirement that they hold a second-class airman medical certificate.

Administrative Claims Under the Federal Tort Claims Act - This amendment required prospective claimants under the Federal Tort Claims Act to follow certain procedures for filing their claims

with the FAA.

Foreign Air Carriers and Operators of Certain Large U.S.-Registered Airplanes - This amendment required that U.S.-registered aircraft leased by foreign persons are maintained in accordance with minimum acceptable maintenance standards.

Protective Breathing Equipment (PBE) - This amendment provided new standards for PBE for crewmembers who might fight smoke or fire in the airplane while in flight, required the performance of an approved firefighting drill using PBE, and required that when possible PBE be located within 3 feet of each required hand fire extinguisher in passenger compartments.

Carry-on Baggage Program - This amendment required air carriers in scheduled service to develop and use approved carry-on baggage programs and also required that air carriers verify that each article of baggage is properly stowed before the last cabin door is closed prior to pushback or taxi.

Carriage of Weapons and Other Dangerous Objects at Washington National Airport and Washington Dulles International Airport; Restricted Areas - This amendment clarified the rule governing the carriage of weapons and other dangerous objects on Washington National Airport and Washington Dulles International Airport.

Charges for Use of Metropolitan Washington Airports - This amendment adjusted the fees and charges for use of Washington National and Washington Dulles International Airports for general aviation operators and for air carriers that do not have a contract for use of the airports.

Aircraft Identification and Retention of Fuel System - This amendment required that 12-inch-high nationality and registration marks be displayed on aircraft that penetrate defense and warning zones, that a civil aircraft identification data plate be displayed so that it is legible to a person on the ground, and that a copy of the FAA Form 337 for installation of extended-range fuel tanks installed within a passenger or baggage compartment be kept in the aircraft.

Standards for Approval of an Automatic Takeoff Thrust Control System (ATTCS) -This amendment provided new airplane and equipment airworthiness standards for the installation of an automatic takeoff thrust control system on transport-category airplanes.

Airport Certification; Revision and Reorganization - This amendment revised the regulations dealing with the certification and operation of airports serving certain air carriers.

Airplane Operator and Foreign Air Carrier Security Rules - This amendment required the application of certain security procedures to all persons entering an airport sterile area in the United States at a preboarding screening check point to prevent or deter the carriage aboard aircraft of explosives, incendiaries, and deadly or dangerous weapons.

Recordation of Conveyances Affecting Title to, or an Interest in, Aircraft - This amendment adopted rules affecting aircraft registration and the recordation of conveyances by eliminating the requirement for a conditional sales vendee to have the consent or a release from the conditional sales vendor before transferring the ownership of the aircraft.

Noise Standards for Helicopters in the Normal, Transport and Restricted Categories - This amendment added noise certification standards applicable to civil helicopters in the normal, transport, and restricted categories and provided noise level limits and test procedures for the issuance of original and amended type certificates.

Expansion of Applicability of Part 150 to Heliports - This amendment expanded the applicability of the rules governing the airport noise compatibility planning process to include free-standing public-use heliports and allowed operators of those heliports to benefit from the Airport Improvement Program.

Mandatory Reporting for Emergency Evacuation Systems and Components - This amendment required certificate holders to report each failure, malfunction, or defect of emergency evacuation systems and components.

Smoking Aboard Aircraft - This amendment required the "No Smoking" sign to be turned on at all times on scheduled airline flights, except for flights between the United States and other countries, that are scheduled to be 2 hours or less in duration.

Standards Governing the Noise Certification of Aircraft - This amendment revised certain provisions of the regulations prescribing requirements for aircraft noise certification to make them more understandable and easier to use.

Improved Seat Safety Standards - This amendment upgraded the standards for occupant protection during emergency landing conditions in transport-category airplanes by revising the seat restraint requirements and by defining impact injury criteria.

Modification of the U.S. Air Defense Identification Zones (ADIZ) - This amendment changed the lateral boundaries of ADIZ's around the continental United States, Alaska, and Guam.

Transponder with Automatic Altitude Reporting Capability - This amendment established requirements for an aircraft to have an operating transponder with automatic altitude reporting equipment (a transponder with Mode C) when operating in the vicinity of certain primary airports for which a terminal radar approach control service area has been established and in other airspace at and above 10,000 feet mean sea level.

Cockpit Voice Recorders (CVR) and Flight Recorders - This amendment required digital flight recorders and cockpit voice recorders to be installed in a broad category of airplanes and rotorcraft operated by scheduled air carriers and commuters.

Small Airplane Airworthiness Review Program, Amendment No. 1 - This amendment upgraded the standards for cabin safety and

occupant protection during emergency landing conditions for airplane types certificated to the small airplane standards.

Improved Flammability Standards for Materials Used in the Interiors of Transport Category Airplane Cabins - This amendment upgraded the fire safety standards for cabin interior materials in transport category airplanes by establishing refined fire test procedures and apparatus and a new requirement for smoke emission testing.

Airport-Related Proceedings - This amendment revised several applicability sections of the investigative and enforcement procedures regarding airport-related proceedings to update the procedures to refer to the 1982 airport funding statute and recent congressional amendments to the 1982 Act.

Rotorcraft Regulatory Review Program; Amdt. No. 3 - This amendment adopted new and revised airworthiness standards for the powerplant and rotor drive aspects of type certification of normal and transport-category rotorcraft.

Rules of Practice for FAA Civil Penalty Actions - This amendment set forth revised initiation procedures and new rules of practice in FAA civil penalty actions and provided detailed procedures for on-the-record hearings required in civil penalty actions by recently-passed congressional legislation.

Airborne Low-Altitude Windshear Equipment and Training Requirements - This amendment required airborne low-altitude windshear warning and flight guidance equipment in airplanes operated by scheduled air carriers and windshear training for flight crewmembers of airplanes operated by scheduled and commuter air carriers.

Noise Certification Standards for Propeller-Driven Small Airplanes and Propeller-Driven Commuter Category Airplanes - This amendment revised noise certification standards for propeller-driven small airplanes and propeller-driven commuter category airplanes by substituting the use of actual takeoff tests for the level flyover tests previously specified.

Flight Plan and Transponder Requirements in an Air Defense Identification Zone - This amendment established flight plan and position report requirements for all civil aircraft conducting operations into or out of the United States into, within, or across the contiguous U.S. Air Defense Identification Zone.

Terminal Control Area (TCA) Classification and TCA Pilot and Navigational Equipment Requirements - This amendment revised the classification and pilot and equipment requirements for conducting operations in terminal control areas.

State Block Grant Pilot Program - This amendment set forth regulations to implement the State block grant pilot program included in recent congressional legislation to provide guidance to the States regarding the application process for, and administration of, the 2-year State block grant pilot program.

Anti-Drug Program for Personnel Engaged in Specified Aviation

Activities - This amendment required scheduled and commuter operators and air taxi operators, certain contractors to these operators, and air traffic control facilities not operated by or under contract with the FAA to have an anti-drug program for employees who perform specific safety-related functions.

Foreign Repair Station Rules - This amendment updated the role of foreign repair stations and foreign aircraft manufacturers.

Responsibilities of Manufacturers of Parts and Products Under a Production Certificate - This amendment clarified the responsibility of production certificate holders with respect to the manufacture of replacement or modification parts for installation on type-certificated products.

Inoperative Instruments or Equipment - This amendment permitted rotorcraft, nonturbine-powered airplanes, gliders, lighter-than-air aircraft, for which an approved master minimum equipment list has not been developed, to be operated with inoperative instruments and equipment not essential for the safe operation of the aircraft.

Applicability of Federal Aviation Regulations in the Airspace Overlying the Waters Between 3 and 12 Nautical Miles from the United States Coast - This amendment extends controlled airspace and the applicability of certain air traffic rules to coincide with certain limits of territorial jurisdiction adopted by the United States.

Establishment of Warning Areas in the Airspace Overlying the Waters Between 3 and 12 Nautical Miles from the United States Coast - This amendment established warning areas in airspace subject to FAA jurisdiction, in order to reflect presidential action extending the territorial sea of the United States, for international purposes, from 3 to 12 nautical miles from the U.S. coast.

Access to Secure Areas of Airports - This amendment established a requirement for certain airport operators to submit to the Director of Civil Aviation Security for approval and inclusion in their approved security programs amendments to ensure that only those persons authorized to have access to secured areas of an airport are able to obtain that access and to ensure that such access is denied promptly to individuals whose authority to have access changes.

Traffic Alert and Collision Avoidance System - This amendment required the installation and use of a traffic alert and collision avoidance system in large transport-type airplanes and certain smaller turbine-powered airplanes.

Fire Protection Requirements for Cargo or Baggage - This amendment upgraded the fire safety standards for cargo and baggage compartments in certain transport-category airplanes used in air carrier, air taxi, or commercial service.

Security Programs for Foreign Air Carriers - This amendment required foreign air carriers that land or take off in the United States to submit to the Administrator for acceptance a

written security program that describes the procedures, facilities, and equipment used by the foreign air carrier to provide for the safety of persons and property traveling in air transportation against acts of criminal violence and air piracy.

Certification of Recreational Pilots and Annual Flight Review Requirements for Recreational Pilots and Non-Instrument-Rated Private Pilots with Fewer Than 400 Flight Hours - This amendment established a recreational pilot certificate to provide a lower cost alternative to the private pilot certificate by requiring less training than is required for private pilot certification.

SENATOR LAUTENBERG: What happened to the safety indicators contract?

ANSWER: The FAA awarded a $7.4 million 5-year contract to Fu Associates and the Flight Safety Foundation (principal subcontractor) to design, develop, and implement a system of aviation safety indicators to evaluate the safety performance of the national aviation system. FY 1988 funds in the amount of $693,000 were spent for a literature review and project planning. Subsequent analysis determined that the contract was not properly scoped or funded. Therefore, it was cancelled and the effort has been undertaken in-house.

SENATOR LAUTENBERG: What is FAA doing to develop a set of safety indicators? Costs?

ANSWER: A Safety Indicators Division in the office of the Associate Administrator for Aviation Safety has been established to implement and oversee the Safety Indicators Program. FAA sponsored a joint FAA, industry, inter-Governmental workshop on April 6, 1989, to begin the formulation of an overall structure for indicators to include air traffic control, flight operations and other areas of the national airspace system. Other major tasks will include the evaluation of data relationships, the identification of potential indicators, the development of equations and algorithms, the validation of the indicators, and system implementation.

$1.6 million is required in FY 1990 for technical support through interagency agreements and/or other contractual instruments. This support will be in the form of statistical/data analysis, analytical techniques, expert systems consultants, and systems development efforts.

SENATOR LAUTENBERG: What is Operation SNAPSHOT? Costs?

ANSWER: Operation SNAPSHOT is an "Impact 88" initiative of former Administrator McArtor. It is an indepth, proactive, national safety inspection of the civil aircraft manufacturing community and the FAA's production certification program. SNAPSHOT focus, with respect to the aircraft manufacturing community, is on the manufacturer's quality assurance system and quality technologies. A total of 88 inspections were conducted, the last of which were completed in January 1989. The effort was well received and supported by industry.

A SNAPSHOT Final Report in draft form was received from the SNAPSHOT contractor on April 10, 1989. Weaknesses were identified in the quality assurance systems of the aircraft manufacturing community. The report indicated an appraisal may be required of the FAA's Aviation Safety Inspector (Manufacturing as opposed to Flight Standards) staffing and training. It was also emphasized that the FAA should take a leadership role in the rapidly expanding

"internationalization" of the aircraft manufacturing community by recognizing the rapid changes and adequately staffing to assume that role.

An estimated $1,045,000.00 in travel and contractual support has been committed towards SNAPSHOT.

SENATOR LAUTENBERG: What is Project SMART? Cost?

ANSWER: Project SMART is the Aircraft Certification Regulatory Program's (ACRP) strategic plan for regulatory policy and organizational development. The intent of the plan is to define and execute a specific set of actions aimed at upgrading and maintaining an effective and efficient ACRP. Since its inception in 1986, approximately 2.2 million dollars has been invested in this project, most of which went towards accomplishing a comprehensive Job Task Analysis (JTA) covering all occupational specialties within the ACRP. The JTA was completed in April 1989. We are about to begin using the JTA data for other critical sub-projects of Project SMART, such as the development of a modernized technical training program, the establishment of a meaningful automated management information system, and the institutionalization of a sound and reliable national aircraft certification auditing system.

SENATOR LAUTENBERG: What is the Aviation Safety Analysis System?

ANSWER: The ASAS program began in the early 1980s as a result of difficulty experienced in acquiring information required to support regulatory rulemaking activities. The initial concept was to develop improved automated data bases with increased data quality, access, and currency.

Several major subsystems have been developed and are currently in use to support basic regulatory standards and compliance functional responsibilities in the following areas:

- o Planning, scheduling, tracking, analyzing, and managing the work activities of inspector work programs (e.g. the Work Program Management Subsystem, the Manufacturing Inspection Management Information Subsystem, the National Aviation Safety Inspection Program Subsystem, etc.).
- o Field data entry, tracking, analysis, and reporting on the entire enforcement process (Enforcement Information Subsystem).
- o Automated recordkeeping of major activities in several functional organizations including Civil Aviation Security and Aviation Medicine (e.g. Inspections Subsystem, Investigations Subsystem, Contingency Subsystem, and Hazardous Materials Subsystem).
- o Automated search and retrieval of the complete text of the Federal Aviation Regulations (Automated Federal Aviation Regulations Subsystem).
- o Automation of the process of generating operations specifications for air operators (Operations Specifications Subsystem).
- o Data bases to capture vital information on agencies and airmen that are under the jurisdiction of the field offices (e.g. Vital Information Subsystem and Simulator Inventory and Evaluation Schedule Subsystem).
- o Complete process support for the creation, full-text storage, and analysis of Exemptions to FARs (Automated Exemption Subsystem).
- o Project management and control in areas of certification,

manufacturing, and overall AVS project resumes (e.g. Project Information and Control Subsystem and Automated Resume Subsystem).

- o Access to regulatory required mandates for maintaining operational status of aircraft and agencies (e.g. Airworthiness Directives Subsystem, Master Minimum Equipment Subsystem, Regulatory Background Reference Subsystem, Automated Exemption Subsystem, etc.).
- o Vital information for the certification and medical status of several types of airmen (Comprehensive Airmen Information Subsystem and Health Information Subsystem).
- o Collection and analysis of information on aircraft accidents and incidents (Accident/Incident Information Subsystem).
- o Increased automation for the Aircraft and Airman Registries including improved access and applications processing.
- o Automated support for accessing and analysis of archival type information including the genesis of the Federal Aviation Regulations (FARs), policy memoranda, preambles, NPRMs etc.
- o Interfacing with the NTSB to provide an improved capability for accident reporting and data analysis.
- o Automation for the complete processing of regulations from initiation through publication.

SENATOR LAUTENBERG: What is the cost of ASAS?

ANSWER: The Aviation Safety Analysis System (ASAS) FY 1989 program is $8,611.0. This amount includes funding for contractual subsystem development and operational support, training, hardware acquisition and maintenance, and a variety of user support and planning activities. The FY 1990 ASAS program is estimated at $11,435.0 and will provide a sufficient level of support for known functional systems development and operations requirements.

There still remains a critical need for microcomputers to support the ASAS program. Although $25 million was requested in FY 1989 to support this requiremetn and $25 million was requested for FY 1990 to suppport this requirement, we have not received appropriate funding to meet this critical need.

TRAFFIC ALERT AND COLLISION AVOIDANCE SYSTEM (TCAS)

SENATOR LAUTENBERG: As you know, Public Law 100-223 and your regulations require that airlines meet a December 30, 1991 installation deadline for TCAS II. A recent report by the Office of Technology Assessment proposed a phased implementation schedule and a structured evaluation program carried out jointly by industry and the FAA to oversee the first year of operation. The report also proposed that Congress consider extending the compliance deadline. What is your position on the OTA recommendations?

ANSWER: The FAA considers the recommendations (identified as conclusions and options in the OTA special report) "Safer Skies with TCAS" as objective and reasonable. The OTA developed a fourth option (i.e. recommendation) which is considered by OTA to be the best choice. This option would introduce TCAS-II on commercial aircraft as soon as possible by requiring a phased implementation schedule, providing for a structured in-service evaluation carried out jointly by industry and FAA during the first year of operation, and extending the Public Law 100-223 deadline of 1991 for the applicable fleet to be equipped with TCAS-II to 1993. The FAA considers this option reasonable and supports it.

SENATOR LAUTENBERG: Are you considering or would you support legislation to extend the compliance deadline?

ANSWER: The FAA would support legislation to extend the compliance deadline of Public Law 100-223. OTA'S fourth option in its TCAS Special Report, would provide the safety objective desired, allow for an in-service evaluation program of TCAS-II, and result in the U.S. commercial fleet being equipped with TCAS-II by the end of 1993.

SENATOR LAUTENBERG: According to the OTA, no more than two TCAS II equipped commercial aircraft have flown at any given time. The OTA concludes (p. 25) that a basic requirement for a successful operational evaluation program is having a critical mass of aircraft outfitted with TCAS II at an early date. They believe that if 15 to 30 percent were equipped with TCAS II during 1990, a reasonable operational evaluation of system effects would be possible. Do you agree, and is it feasible to equip 15 to 30 percent during 1990?

ANSWER: The FAA believes, with the information provided by the aviation industry, that 15 to 30 percent of the U. S. commercial fleet could be equipped with TCAS-II by the end of 1990.

SENATOR LAUTENBERG: In a February 17, 1989 letter, Mr. McArtor stated that there was no doubt that there would be efficiencies and safety benefits if there were congruence between the installation timetables for TCAS II and the windshear alert and flight path guidance equipment recently mandated for U.S. airlines. Would you elaborate on what these benefits are?

ANSWER: The type and nature of required airplane modifications to install TCAS-II and the windshear alert and flight path guidance equipment are significant. Since commercial airplanes are scheduled for maintenance to accomplish the required airworthiness work, with the least loss of service to the public, a congruent schedule for the installation of these two systems would be the most reasonable requirement. The two systems require many of the same areas within an airplane to be modified and having the work accomplished at the same time would be an additional benefit.

SENATOR LAUTENBERG: If there were to be a deadline extension, do you believe those airlines granted the extension should be required to install more sophisticated versions of TCAS-II?

ANSWER: No. The FAA believes that TCAS-II will provide a significant improvement in reducing the potential of a mid-air collision, independent of the safety provisions provided by the air traffic system. The development and evaluation of TCAS-III, which will provide lateral command information, in addition to the vertical command information provided by of TCAS-II, will require several more years. It is currently estimated that production TCAS-II components will not be available until after 1993, but more important, is that the added sophistication of a TCAS-III may not be needed to provide the safety objective of traffic alert and collision avoidance.

UNIVERSITIES AND COLLEGES

SENATOR LAUTENBERG: What funds does FAA spend on contracts with universities and colleges?

ANSWER: The total estimated Research, Engineering & Development funding for contracts with colleges and universities presently underway is $13,648,000.

SENATOR LAUTENBERG: List the recipients, dollar amount of contract, purpose of contract, length, completion dates, and expected product.

ANSWER: The information is provided below:

Recipient/ ($s in 000s Total $ Amt. of Contract)	Purpose	Length of Contract	Compl. Date	Product
Rutgers University ($1,874)	Research in air traffic control systems engineering and aviation safety	5 yrs.	3/93	Research reports used to support technical programs.
FAA/NASA Joint Univ. Program (Princeton, MIT, Ohio University) ($1,000)	Research as indicated below.	5 yrs. Expected award date 7/89	Estimated 7/94	Research reports used to support technical programs
Princeton	- Guidance and control strategies for windshear encounters - Robust Flight control - Technical issues for gen. aviation			
MIT	- Airborne interactive communications of weather information - Expert systems for the generation of terminal area landing/ arrival pads for civil transport - Speech recognition in air traffic control			
Ohio Univ.	- Integrated Inertial/ GPS Techniques - Weather data dissemination to aircraft			

Recipient/ ($s in 000s Total $ Amt. of Contract)	Purpose	Length of Contract	Compl. Date	Product
George Washington Univ. ($24)	Identify current and future role that military airfields could play in the National Airspace System	4 mos.	7/89	Research report
Wichita State University ($400)	Develop master requirements and implementation plan for an international aircraft operator data base for the dissemination of FAA airworthiness information	10 mos. (new contract currently in process estimated award date 6/89)	Estimated 4/90	Master Plan
North Carolina A&T ($300)	Develop knowledge-based image analysis system to identify threat objects in x-ray images of baggage	28 mos.	2/90	Image analysis software package
University of Dayton ($125)	Develop statistical trend data to define number, sizes, and types of birds being ingested by various classes of turbine engines.	2 yrs.	4/90	Research reports
University of North Dakota ($9,400)	Hazardous weather research development of icing algorithm and dual doppler support of FAA/MIT Lincoln Lab. Doppler radar test facility	4 yrs.	4/91	Research reports and icing hazard algorithm

Recipient/ ($s in 000s Total $ Amt. of Contract)	Purpose	Length of Contract	Compl. Date	Product
Fisk University ($450)	Research in vapor preconcentrator studies	28 mos.	1/90	Information leading to design criteria for a commercial preconcentrator
Historically Black Colleges & Universities ($75)	Research to determine capability of commercial hand extinguishers when applied to burning aircraft materials	1 yr. (contract in process of award est. award date 9/89)	Estimated 9/90	Research report

HUMAN FACTOR RESEARCH

SENATOR LAUTENBERG: What human factor research is being conducted by the FAA?

ANSWER: The summary of FAA Human Factors Planning Process and Initiatives are listed below:

Human error has been identified as a casual factor in 66 percent of air carrier fatal accidents, 79 percent of commuter fatal accidents, and 88 percent of general aviation fatal accidents. This has been a source of increasing concern to both industry and government, and the U.S. Congress has recently enacted legislation, the Aviation Safety Research Act of 1988, that specifically directs the FAA to substantially augment its research program dealing with the relationships between various human factors and aviation safety. While many productive research efforts concerned with human performance issues have been underway in the FAA, NASA, academia, and industry for many years, these efforts have not been organized into an overall plan that addresses the comprehensive nature of the human factors problem in all types of aircraft, in air traffic control, and in the interface between air and ground. Recently, the scope of the human performance problem has become more clearly understood in both industry and government, and it is imperative that a coordinated national plan to address these issues be developed. In fact, all of the major categories specified in the Aviation Safety Research Act have extensive human factors implications even though they are referred to in other ways, such as controller performance research, civil aeromedical research and aircraft maintenance inspection, etc.

Since human performance concerns are central to all of the FAA's primary responsibilities, an organizational commitment has been made to manage and coordinate the development of the national aviation human factors research plan at the highest levels of the agency. In addition, a decision has been made to pursue the

development of a comprehensive national plan for aviation human factors research, not just an FAA plan. This will require the development of strong working relationships with all of the human factors "centers of excellence" in other government agencies (particularly NASA with its substantial research capability), in industry, and in the academic community. The agency intends to enhance its existing research capability at facilities such as the Civil Aeromedical Institute and the Technical Center, but deems it neither practical nor necessary to dramatically increase its own internal research capability at the present time. However, this decision may necessitate a requirement for added flexibility in our ability to establish working relationships with outside research entities.

The high level of coordination necessary both within the agency and with outside groups will be accomplished internally through a newly-created group, the Human Factors Coordinating Committee (HFCC) which reports to the Executive Directors of the FAA. Each of the four Executive Directors has designated one permanent representative to the HFCC, and the committee is chaired by the Chief Scientific and Technical Advisor for Human Factors. This is a new high level scientific position created specifically as a focal point for human factors initiatives within the agency and recently accepted by H. Clayton Foushee, formerly of NASA. The four HFCC organizational representatives plus the Chief Scientific and Technical Advisor serve as the "voting members" and will coordinate and develop plans for all human factors initiatives for submission to the Executive Directors for approval. In addition, each of the HFCC organizational representatives will chair subcommittees that will be responsible for developing and overseeing plans within each organization. These subcommittees include strong representation from both the cockpit and air traffic operational environments, as well as FAA research expertise from the Civil Aeromedical Institute and the Technical Center.

The HFCC has been in operation since January, and has accomplished the following through March 1989: (a) an internal survey of the current FAA human factors initiatives; (b) a review of the ATA-sponsored Human Factors Task Force proposals for human factors research resulting in recommendations to the Executive Directors; and (c) drafted a proposed mechanism for joint development of the national plan with other government agencies, industry, and the academic community.

SENATOR LAUTENBERG: Why has FAA taken the position that funding for the Human Factors Research University Consortium needs to go through private consulting firms?

ANSWER: There is no Human Factors Research University Consortium. The University Aviation Association has provided a supporting role in this project. Additional information is provided in the next answer.

SENATOR LAUTENBERG: Who made the decision and on what grounds?

ANSWER: The FAA's FY 1990 Congressional submission, Research, Engineering and Development appropriation indicates on page RED-38, paragraph 5, "In FY 1990, analysis of aviation trends will be performed to allow analyses of the knowledge, skills, and abilities required for future airman certification."

On June 13, 1988, the FAA contracted with the University of North Dakota (UND) to define a program on human factors research related to cockpit crew training and certification. UND submitted

the final report to FAA on May 10, 1989. It included, as a first step of the program, a number of proposals from various universities for conducting trend analyses, independent evaluations of those proposals, and a further proposal for UND to provide project management.

It is not possible to meet the FY 1990 commitment through a non-competitive procurement with any university or group of universities. The only contract vehicle which may be capable of accomplishing the FY 1990 commitment in a timely manner is an FAA/OPM Interagency Agreement. This would be appropriate because identification of trends affecting future airman certification is imperative for determining future aviation inspector criteria and training needs.

Representatives of UND and the University Aviation Association met with FAA on May 12, 1989, to discuss how to implement the trend analyses. At that meeting, all parties agreed to work jointly with an OPM subcontractor to develop a Management Action Plan, if that is acceptable with OPM. This plan will define roles and responsibilities, methodologies, milestones, and costs. One of the criteria fundamental to the Management Action Plan will be the requirement for maximum involvement of the aviation university community.

FAA-MINNESOTA PARTNERSHIP

SENATOR LAUTENBERG: What is the "FAA-Minnesota Partnership"? Please elaborate.

ANSWER: It is an agreement between FAA and Minnesota to work more closely together to meet aviation needs, by carrying out existing aviation programs more effectively and identifying new projects that will be mutually beneficial. It was initiated by the Minnesota Office of Aeronautics in July 1988, followed up by an exchange of letters between the Governor of Minnesota and the Administrator of FAA. The Partnership was formally announced at a kick-off ceremony at the U.S. Capitol on September 14, 1988. FAA and Minnesota have identified ten program areas to work on together. Examples of Partnership activities are:

(a) FAA and Minnesota are holding a series of public meetings in Minnesota to respond to questions and concerns about aviation.

(b) Minnesota and FAA have agreed to work together to develop an educational curriculum and training to help meet the need for air traffic controllers and other aviation professionals.

(c) We are working out ways to streamline airport grant and certification procedures.

We intend to take successful projects to other states so they will share in the benefits of the Partnership.

QUESTION SUBMITTED BY SENATOR BYRD

SENATOR BYRD: Result of trip to Clarksburg, West Virginia. Furnish information in a letter.

ANSWER: As you know, the Benedum Airport Authority, working with the private sector, is currently engaged in a major effort to develop a full-scale aviation maintenance facility (aircraft services, repairs, etc.) at Benedum Airport near Clarksburg/Bridgeport. The project, to be known as the West Virginia Air Center, will require the closing of runway 13-31 (the crosswind runway) and the relocation of certain existing facilities. The Federal Aviation Administration (FAA), along with the Economic Development Administration (EDA) and the Appalachian Regional Commission (ARC), has been asked to provide financial support for the proposed expansion. At the request of Congressman Alan B. Mollohan, representatives of the FAA attended a meeting at Benedum Airport on April 24 to discuss the Authority's project plans and how the FAA can assist in the process.

The concept depends upon a finding that the closing of runway 13-31 and construction of the maintenance facility and associated landside and airside development are operationally and environmentally acceptable. At the April 24 meeting, the importance of completing the necessary environmental findings and updating the airport master plan were discussed in detail. It was agreed that we would determine to what extent the efforts of the three Federal agencies could be combined to expedite the Federally-funded portions of the project. The FAA representatives explained that under the Airport Improvement Program (AIP), financial participation would be based upon demonstrated benefits to the aviation system and would be limited to the public-use apron and taxiway areas. It was understood that specific AIP funds could not be set aside for the project until submission and approval of the project application.

Subsequent to the April 24 meeting, FAA met with Congressman Mollohan to further discuss the FAA's role in the proposed expansion. The Congressman advised that he planned to continue his efforts to ensure the optimum participation by various appropriate Federal agencies in the project. On May 15, the airport authority held a meeting in the boardroom of Benedum Airport to further define the various funding components of the effort. The meeting was attended by airport authority officials, the airport manager, Congressman Mollohan and representatives of FAA, EDA and ARC. The Authority has submitted a grant application to EDA and the environmental assessment has been completed for that application. Copies of the environmental assessment for the EDA grant application have been forwarded to the FAA Airport Field Office in Beckley. The assessment will be reviewed to determine if the EDA environmental document can also be used to meet FAA requirements. We believe that under FAA environmental procedures, the apron and taxiway work can possibly be excluded categorically from the requirement for formal environmental assessment.

We hope to issue an AIP grant to fund the updating of the master plan within the next few weeks. The master plan update will provide detailed aeronautical analysis of the proposed expansion project. The FAA will continue to provide whatever support it can to the authority consistent with the aviation needs of West Virginia and the nation.

QUESTIONS SUBMITTED BY SENATOR HARKIN

AIRWORTHINESS

SENATOR HARKIN: It is my understanding that the FY 1990 FAA budget request includes an increase of $4.2 million over FY 1989 levels for aging aircraft programs. However, the Air Transport Association (ATA) recommended that an additional $7 million be added to the FY 1990 FAA budget request for the Aging Aircraft Program. In what areas would additional funding contribute most to a focused and responsible aging aircraft program?

ANSWER: The FY 1989 appropriated Research, Engineering & Development budget did not include funding for the aging aircraft program. The program started through reprogramming in FY 1989 at a $5 million level.

The FY 1990 Congressional submission includes $5.5 million for this program.

The program breakout for FY 1989/1990 is as follows:

($'s in 000's)

	FY 1989 Reprogramming	FY 1990 Congressional Submission
19 Aviation Medicine		
Aging Aircraft - Human Factors	1,216	1,475
18 Aircraft Safety		
Aging Aircraft	3,858	4,054
	5,074	5,529

The $7 million additional funding will:

- Expand and make a more comprehensive data base on multiple site cracking.
- Investigate new methods for detecting cracks and disbonding.
- Develop corrosion prediction, detection, and preventative means.
- Establish a cradle-to-grave structural integrity procedure.
- Develop airframe fatigue life assessment system.
- Develop advanced automated non-destructive inspection.
- Expand human factors efforts.

SENATOR HARKIN: Please describe for me the formal mechanism FAA currently uses to establish cooperative research projects with NASA. How does FAA bring its research needs to the attention of the NASA research community?

ANSWER: Federal Aviation Administration (FAA) establishes cooperative research projects with the National Aeronautics and Space Administration (NASA) with interagency agreements signed in FAA by the responsible contracting offices and in NASA by the center director performing the research. The function of the interagency agreement is to transfer funds to NASA and define the work to be accomplished.

When FAA project managers have research needs that can be supported by NASA, they contact the appropriate NASA technical offices, usually through the FAA Engineering Field Offices established at Ames and Langley. When a satisfactory research activity has been agreed upon, the interagency agreement is developed

and coordinated with agency management prior to being signed. A principal function of the FAA Engineering Field Offices is to provide an interface between FAA research needs and NASA research capabilities.

The FAA/NASA Coordinating Committee meets semi-annually to review the cooperative research program and to examine FAA research needs in light of NASA capabilities. The committee is chaired jointly by the FAA Executive Director for Systems Development and the NASA Associate Administrator for Aeronautics and Space Technology. The co-chairmen are the FAA Associate Administrator for Development and Management Control and the NASA Director for Aeronautics. The principal purpose of the committee is to assure appropriate senior management attention to the cooperative research program. Executive secretariats established in FAA and NASA organize the committee meetings and follow up on actions agreed.

SENATOR HARKIN: How many jointly funded FAA-NASA research projects are currently in place?

ANSWER: Currently there are 15 individual agreements between FAA and NASA for cooperative Research and Development.

LISTING OF EXISTING ACTIVE INTERAGENCY AGREEMENTS/MOUs WITH NASA:

	TITLE/PURPOSE AGREEMENT NO.	
1.	Technical Coordination, Joint Research, Office at Langley	DTFA01-85-Z-02008
2.	Technical Services and Support to the FAA Field Office at Ames	DTFA01-87-Z-02021
3.	Airborne Wind Shear Detection and Avoidance Program	DTFA01-86-Z-02018
4.	Aircraft/Airport Compatibility Studies	DTFA01-85-Z-02013
5.	Cockpit Technology	DTFA01-84-Z-02049
6.	Air Traffic Systems Automation Issues	MOU 256B,910-004-270
7.	NASA Aviation Safety Reporting System	MOU
8.	Aeronautical Safety Human Factors	DTFA01-88-Z-02014
9.	Rotorcraft Technology	DTFA01-88-Z-02015
10.	Joint Aeronautical Mobile Satellite Experimentation	MOU (NASA HQ)
11.	(Providing Live Air Traffic Data to Ames Research Center (ARC))	MOU (ARC)
12.	Civil Tilt Rotor Technology	MOU (ARC)
13.	Aircraft Icing Research	DTFA03-81-A-0020
14.	Flight Operational Procedures and Avionics Equipment Requirements for Flying MLS-Curved Instrument Approaches	DTFA03-89-A-0009
15.	Digital Systems Validation	DTFA03-89-A-0005

SENATOR HARKIN: It is my understanding that Harwell Laboratories, the major research establishment of the United Kingdom Atomic Energy Authority, has proposed the establishment of an Aging Aircraft Inspection Club to help the U.S. aviation industry improve aircraft maintenance technologies and practices. How has the U.S. aviation industry responded to this proposal? Is this proposal viewed by FAA and the aviation industry as a step in the right direction for improving aircraft maintenance technologies and practices?

ANSWER: The Harwell proposal, while very effective in the United Kingdom, is not viewed as a proper approach for FAA and the Aging Aircraft Research Program. Problems of proprietary data with U.S. industry could minimize such an approach. The FAA regards the use of its own research capabilities in the academic world and independent research elements as the most effective approach to obtaining the maximum cooperation from the airline industry in solving the problems.

SENATOR HARKIN: What is the FAA's view of establishing a reliance on foreign research and development to improve aircraft maintenance technologies and practices? Is FAA concerned about aircraft maintenance technologies such as Non-Destructive Evaluation (NDE)/Non-Destructive Inspection (NDI) being developed by research laboratories overseas as part of a research program financed by the U.S. taxpayers?

ANSWER: The FAA is availing itself of all developments by foreign groups in all areas of the aging aircraft problem, with organizations such as the Cranfield Institute in Great Britain being funded in the corrosion and crack growth area since their work is more advanced and will benefit the United States sooner than initiation of new work.

SENATOR HARKIN: Do you believe it would be more effective to establish a focused university/industry/government research and training program in aging aircraft or to continue funding aging aircraft research and training in the same way that it has always been done? In other words, will existing research funding mechanisms deliver us the technology we need to improve aviation systems reliability?

ANSWER: The FAA believes that current research and training funding activities hold certain advantages over a university/industry/government research and training program. First, the current funding activities are versatile; that is, funds may be applied to research and training needs in all areas pertaining to aging airplanes. The task of assuring that aging airplanes continue in an airworthy condition covers many disciplines: inspection reliability; corrosion prevention, detection, and control; and fatigue analysis and prediction, to name a few. The advocates of university/industry/government research and training programs tend to want to specialize in one area, indicating that they would perhaps be more restrictive in their application.

Second, we feel that the current approach using the Air Transport Association/Aerospace Industries Association Aging Aircraft Task Force in support capacity (advisory and assistance), would be responsive to immediate industry's needs as well as provide for a long-range development program. Such an approach would combine the responsiveness of fiscal budgeting with a confirmed awareness of industry needs. The FAA is aware, however, that there are established university/industry/government centers in specialized

areas which would benefit the continued airworthiness of aging airplanes. One of these, the Ames Research Center, Ames, Iowa, which specializes in research and training in non-destructive testing, is currently being considered for funding under the current program.

SENATOR HARKIN: The Aviation Safety Research Act of 1988 (PL-100-591) requires FAA to expand its long-range research efforts. What specific efforts have you undertaken to carry out this mandate. How will you bring the university/industry/government aviation research community together to sustain a responsible and focused long-range research program?

ANSWER: The Act requires that 15 percent of the FAA's Research, Engineering & Development (R,E&D) appropriation be used for long-term research. Long-term research, as defined by the Act, means research projects which are unlikely to result in a final rulemaking action within 5 years, or in initial installation of equipment within 10 years, after the commencement of the project. FAA is in compliance with this requirement. Over 20 percent of the projects set forth in the current R,E&D Plan fall within this definition of long-term research. More importantly, in FY 1990 the FAA intends to focus even more on the longer-term system needs and this should be reflected in next year's R,E&D Plan.

Through a series of actions, we are developing internal capabilities to achieve our goal for a responsible and focused long-range research program in cooperation with colleges, universities, industry, and other government agencies. These actions include a successful R,E&D conference last December which focused on expanding our cooperative effort with the aviation community in the planning process; the formation of an Administrator's Research, Engineering & Development Advisory Committee which will have its first meeting May 1989; and participation in industry task force working groups in areas such as aging aircraft, human factors, and airport capacity. We are also exploring ways to implement a university grant program in the area of research.

AIRPORTS

SENATOR HARKIN: In regard to FAA internal security rules, I understand that the FAA's initial security computerized access rule proposal mandated that only the doors in the terminal be linked up to the computerized access system. Now I understand that the FAA wants the entire airport field to be covered. I have been told that the access system is estimated to cost from $16,000 to $18,000 per door or access point. Has the FAA done a cost analysis of the effect of such a requirement on fixed base operators and others that would be affected including the National Guard? And, if so, what is the estimated cost of such a requirement on fixed base operators, airports and others?

ANSWER: The FAA never intended that only those access points that lead from the terminal building to a secured area would be subject to controls required by Section 107.14. The notice of proposed rulemaking contained a performance standard which has been retained in new Section 107.14. Specifically, the system, method, or procedure identified in the required amendment to the airport's security program must ensure that only those persons authorized to have access to security areas are able to obtain that access. Unless each access point on the airport is identified and the control applied at each point, compliance with Section 107.14 would not be achieved. Such controls are not necessarily computerized access

systems however. The new Section 107.14 provides greater flexibility than that which was contained in the notice of proposed rule-making. The new requirement is for a system, method, or procedure that meets certain performance standards, and the FAA envisions that operators of smaller airports may be able to meet the requirements with minimal or no computer-assisted hardware installation. Cost then will vary greatly between airports and between access points on any one particular airport. However, FAA estimates of design, testing, hardware, installation, maintenance etc., were based on price quotes of manufacturers of computer card access systems. Although no such estimate can be precise to a specific location, the conglomerate is considered to reasonably approximate the average costs to the airport operators.

LANDING SLOTS AT O'HARE

SENATOR HARKIN: I understand that there is a petition before the FAA filed by Air Wisconsin concerning the definition of commuter airport slots. Air Wisconsin would like to see an increase in the size of planes that qualify for landings and take-offs with commuter slots. They want to increase the number from 55 seats to 64 seats.

It does seem that a 64 seat limit would be a reasonable increase in keeping with the logic of commuter slots. Clearly, a plane of that size is not in the same class with the larger jets that fly between the major cities. Economically, it is closer to a commuter type of aircraft.

What are your views concerning this proposal. When do you think a decision will be made.

ANSWER: Air Wisconsin has petitioned the FAA for an exemption from the High Density Rule to operate commuter slots at O'Hare Airport using aircraft with 64 seats. The rule limits use of commuter slots to aircraft with less than 56 passenger seats. Air Wisconsin has also requested, in the alternative, that the FAA amend the rule itself to permit operation of commuter slots with larger aircraft. Most comments on the petition supported the proposal, although several commenters stated that the change should be made available to all operators, by an amendment to the rule, rather than by an exemption granted to Air Wisconsin exclusively.

The FAA and the Office of the Secretary are currently reviewing the comments received on both the Air Wisconsin petition and on FAA Notice 88-18, which requested comments on High Density Rule slot allocation and transfer issues generally. We expect to issue a determination on the petition within the next six weeks.

QUESTIONS SUBMITTED BY SENATOR MIKULSKI

COORDINATION OF NEW MEASURES

SENATOR MIKULSKI: In the aftermath of Pan Am 103 the Department of Transportation, State Department, and the National Security Agency have instituted measures or have made proposals and have established various working groups. How will all these new aviation security measures be communicated and coordinated and pulled together into an efficient and effective policy that will truly put an end to terrorism in our skies? Who will be in charge of this complete effort to ensure effectiveness? What is the lead agency? What are

FAA's responsibilities? How will FAA coordinate with the lead agency?

ANSWER: By virtue of various public laws, the FAA is lead agency for civil aviation security. In order to make our skies as safe as possible, cooperation and coordination with other Government agencies with anti-terrorism responsibilities is essential. The FAA has put together a Civil Aviation Security Improvement Program (CASIP) which provides centralized oversight of more than 20 initiatives designed to enhance aviation security. Both the Department of Transportation and the Department of State (DOS) participate regularly in CASIP, and other agencies will be included as the need arises. One of the initiatives is to establish a National Aviation Security Advisory Committee (NASAC). The NASAC would be under the leadership of the FAA and include law enforcement and intelligence agencies, airline security directors, and the Air Transport Association. The NASAC will provide a forum to improve the level of cooperation and coordination. In addition, the FAA is working with the agencies of the intelligence community to ensure that current threat information--critical to our aviation security efforts--is systematically and immediately available. The FAA also works closely with DOS on several joint projects including enhancement of security at foreign airports served by U.S. carriers. A mechanism is firmly in place for the rapid exchange of information and interagency coordination of actions in response to an attack against civil aviation. Agencies on this network include the National Security Council staff, DOS, FBI, and DOD.

SENATOR MIKULSKI: Do these measures go far enough to ensure the safety of the travelling public? For example, 100% of luggage must now be x-rayed or hand searched. But what is to stop plastic bombing devices before installation of the TNA detection units. Should we not hand inspect all luggage and parcels?

ANSWER: The FAA requires a series of procedures designed to prevent explosive devices from being carried aboard aircraft. These include the screening of luggage as you described, as well as positive match of persons and luggage to ensure that no luggage gets on board an aircraft if the passenger does not, and identification and close scrutiny of persons and their luggage that meet certain criteria. The FAA is also developing additional procedures that will focus directly on the problem of explosive devices being hidden in electronic articles. Such measures are expected to be refined and issued to the air carriers shortly.

SECURITY BUDGET

SENATOR MIKULSKI: Safety of Foreign Carriers. In this light, I would like to know the timetable for implementation of these TNA detection units, and the costs involved. Where and how will they be purchased? Will foreign airports use TNA devices?

ANSWER: The TNA systems or equivalent technology will be required by the FAA through a rulemaking process now underway. The units will be purchased by the air carriers or the foreign governments. The cost is approximately $1 million each. It is anticipated these systems will be used both in the United States and overseas.

SENATOR MIKULSKI: As I mentioned in our last hearing on aviation security after the bombing of Pan Am 103, we must take measures to ensure our citizens safe flights on foreign air carriers.

I am pleased to see that the FAA has published final regulations that require foreign carriers to adopt and use security programs that are acceptable to the FAA. Is there a timetable for the airlines to comply? Who will be responsible for the enforcement of this policy? What penalties have been established for non-compliance?

ANSWER: The final rule regarding Part 129 Foreign Air Carrier security programs was published in the Federal Register on March 16 with an effective date of April 17. The rule requires that all foreign air carriers, subject to the provisions of Part 129, submit their security programs in writing (and in English) to the FAA by June 16 for acceptance by the Administrator. Each carrier must be using an FAA accepted security program by September 14.

FAA Civil Aviation Security special agents currently monitor the compliance of foreign air carriers in the United States and at the last point of departure before entering the United States with the requirements of FAR 129 through air carrier station visits and foreign airport assessments. These special agents will also be responsible for the enforcement of the new rule.

This program falls within the established FAA security enforcement program and includes sanctions and penalties ranging from administrative action through significant civil penalties to possible certificate action.

SENATOR MIKULSKI: Airport Security. It is my understanding that FAA has established a timetable for implementation of new security measures at U.S. airports. Please provide me with this timetable and details of what measures U.S. airports are being required to implement?

ANSWER: The new measures contained in Amendment No. 107-4, became effective on February 8. They require airport operators to submit an amendment to the FAA for approval and inclusion in their Airport Security Programs (ASP) to provide for a system, method, or procedure which will ensure that only those persons authorized to have access to secured areas of an airport are able to obtain that access and, also, to ensure that such access is denied immediately to individuals whose authority to have access changes. Airport operators are required to submit their proposed amendments according to the following schedule:

AIRPORT SUBMISSION OF AMENDMENT

Phase I	At least 25 million persons screened	August 8, 1989
Phase II	More than 2 million persons screened	August 8, 1989
Phase III	At least 500,000 persons screened	February 8, 1990
Phase IV	Less than 500,000 persons screened	February 8, 1990

Each airport operator is required to specify in its amendment that the system, method, or procedure must be fully operational within the time frames established in new Section 107.14 which are as follows:

AIRPORT SUBMISSION OF AMENDMENT

Phase I	At least 25 million persons screened	18 months after approval date
Phase II	More than 2 million persons screened	24 months after approval date
Phase III	At least 500,000 persons screened	30 months after approval date
Phase IV	Less than 500,000 persons screened	30 months after approval date

SENATOR MIKULSKI: How is the FAA following up with the families of victims of Pan Am flight 103? These families still have a lot of questions about the Pan Am bombing, they are frustrated in feeling that there is no cohesive investigation of this tragedy. That is why they advocate an independent commission to handle an investigation. Has FAA made efforts to inform these families of the steps FAA has taken and is taking to investigate? If not I urge you to do so. To this end I am enclosing a letter from the Chairman of the Steering Committee for the victims of Pan Am 103, Mr. Paul Hudson, who has spelled out many of their remaining questions.

ANSWER: We have corresponded with some of the families of the victims, both directly and through congressional inquires. The information provided to the families outlines the additional security initiatives currently underway to ensure protection of travelers at airports in the U.S. and in other countries. The FAA has also recently strengthened the security requirements for foreign air carriers who operate to the U.S. by requiring those carriers to submit security programs that are acceptable to the FAA. The Secretary of Transportation has met personally with family members of victims of Pan Am Flight 103, and has designated a point of contact in the Secretary's office to follow up on all of the families' questions and concerns. The investigation of the catastrophic loss of Pan Am Flight 103 is still continuing, as is the FAA's investigation into the security procedures used by that carrier. Because these investigations are ongoing, it is not possible to release information on these matters without compromising the investigations.

WASHINGTON COUNTY AIRPORT, HAGERSTOWN, MARYLAND

SENATOR MIKULSKI: It is my understanding that the FAA indicated that the Washington County Airport, Hagerstown, Maryland, is not eligible for a radar approach control because the level of traffic does not meet FAA requirements. It is my understanding that the airport is in a catch-22 situation in that the lack of a radar approach control may be the reason why aircraft operators refuse to operate in and out of the airport. Do you see a regional approach as a possible solution to this problem, with several areas sharing the kind of radar system that is needed in Washington County?

ANSWER: Radar approach control services are currently provided to aircraft arriving and departing the Washington County Airport and to aircraft operating in the Hagerstown area by the Washington Air Route Traffic Control Center (ARTCC) located in Leesburg, Virginia. Radar coverage is available at approximately 2,000 feet above the ground in the area. Below this altitude, the Washington ARTCC applies non-radar approach control procedures to ensure separation between aircraft operating in the area on instrument flight plans.

Air traffic operations generated by satellite airports, along

with operations at the primary airport, are considered in both the Phase I traffic activity requirements and the Phase II benefit/cost (B/C) analysis for radar establishment. However, it is highly unlikely that a primary airport not meeting traffic activity criteria including satellite airport operations could qualify under the stringent B/C criteria. In the case of the Washington County Airport, traffic activity at the airport and the satellite airports does not yet meet criteria, and there are no unique conditions which would justify special consideration since radar coverage is available in the area.

SENATOR MIKULSKI: As you know, the Cumberland Airport would like to obtain a Microwave Landing System (MLS). Could the FAA provide details of how and when it will move forward with the program, including development of approach criteria.

ANSWER: Cumberland Airport is scheduled currently to receive a system under the present contract with Hazeltine. Because of contract problems with Hazeltine, we cannot predict a delivery date at this time.

SENATOR MIKULSKI: Garrett County has submitted a pre-application for the FAA for a grant to extend its runway from 2,800 feet to 4,300 feet, and to carry out associated improvements. The Maryland State Aviation Administration has informed me that FAA appears to be receptive to this project using 5% state funds, 5% local, and 90% Federal. I urge you to work with Garrett County to identify funds in FY 1989 funding or commit FY 1990 funds necessary for runway expansion.

ANSWER: An environmental analysis is being conducted to evaluate proposed extension of the runway at the Garrett County Airport in Oakland, Maryland. When it is completed, and if environmental considerations permit, the project can be considered for funding in the FY 1990 program.

FLIGHT SERVICE STATIONS

SENATOR MIKULSKI: Finally, it is my understanding that the FAA has committed the Salisbury flight service station (FSS) to staying open at least until 1991. Please provide me with a report on FAA's plan for the Salisbury flight service station, including specific timetables and possible options that might be available in order to maintain this service at Salisbury.

ANSWER: The FSS Modernization Program calls for the consolidation of all existing FSS's into the 61 automated flight service stations (AFSS). At this time there are no technical or operational reasons that would justify retention of any of the existing facilities once the AFSS has been properly equipped.

The Leesburg AFSS will receive Model 1 Full Capacity in December 1991. At that time the facility would have sufficient equipment to accommodate the activity and personnel from Salisbury. The FSS is scheduled to be consolidated into Leesburg during the second quarter of FY 1992.

Based on the capital investment in the Leesburg AFSS and the overall plan for modernizing the flight service system, we could not justify the retention of Salisbury beyond the scheduled consolidation date.

QUESTIONS SUBMITTED BY SENATOR KASTEN

SECURITY BUDGET

SENATOR KASTEN: Mr. Whittington, we are all concerned about the security issues which face our traveling public, the airport managers, airlines and the FAA. This subcommittee has held a hearing exploring the security issue, as has the Aviation Subcommittee of the Commerce Committee. In that regard, we are to have 6 TNA systems deployed this year. However, up to 100 units are to be delivered in 1990. Given the lead time for production, I understand we should be committing for those by June if the 1990 delivery is to be realistic. At $800,000 to $1 million a piece, are the funds in this budget, or is some other source of funding anticipated? Where do we stand in the procurement process?

ANSWER: The FAA does not anticipate funding the procurement of additional TNA explosive detection systems. The FAA is in the process of developing and coordinating a rule to require the air carriers to use this or equivalent technology for the detection of explosives in checked baggage. As with other security equipment owned and operated by the air carriers, funding would be the responsibility of the carriers.

SENATOR KASTEN: Has any consideration been given to a security surcharge to finance the implementation of these systems in the U.S. and abroad?

ANSWER: Yes. A security surcharge would be a reasonable way to finance these systems, and the Department of Transportation stands ready to facilitate the carriers' requests for approval of such a surcharge. U.S. carriers now have the authority to impose a security surcharge up to $5 one-way on international flights. Although there is no security surcharge on domestic flights, security costs can be addressed through fare adjustments.

SENATOR KASTEN: On another security matter, I know that many parties, and members of this subcommittee, have expressed their concerns on the FAA's new security rule on airport access. Even Secretary Skinner, when he appeared before the Commerce Aviation Subcommittee, acknowledged that significant problems would have to be addressed before the rule was finalized. This is certainly the message that I have received from my Wisconsin airport managers. Compatibility between systems should be required, as well as some resolution as to the division of responsibility between the airports and their tenants and service providers. Where do we stand on that rule?

ANSWER: The rule became effective February 8, 1989. As stated in an answer to Senator Lautenberg, the FAA is not imposing national uniformity although this does not preclude airport operators from installing and using a system with such a capability. Such a national system would certainly require a computer controlled card system, having a nationwide capacity and compatibility and being capable of storing hundreds of thousands of names. The costs would be significantly increased were such a system mandated, and the benefits would be to only a small segment of the aviation system. FAA, recognizing the interest in this question, has commissioned a study of the feasibility of an access system with multi-airport capabilities. FAA regulates air carriers and airport operators but

not other airport tenants such as Fixed Base Operators (FBO). The airport operator is responsible to the FAA for the security provisions of the Airport Security Program (ASP). The operators and tenants may make whatever contractual arrangements they deem appropriate to meet the security provisions of the ASP, e.g., an FBO controlling access through his/her facility to the air operations area.

SENATOR KASTEN: As far as funding for these systems, I know of the important needs of our airports and would favor some means of funding this program outside the regular airport improvement program. Perhaps the security surcharge concept I mentioned with regard to the TNA deployment could be broad enough in concept to encompass these two security related expenditures. Or perhaps we should arrange for trust fund monies to be available outside of the regular airport grants. What are your thoughts in this regard?

ANSWER: I believe that the normal funding within the AIP program should be sufficient to pay for these systems because implementation is phased in over a number of years. The majority of airports covered by the rule historically have funded much of their capital development without Federal financial aid. Some of the airports which had computer access systems in place or in process before the rule was issued used local funding to finance their systems. I do not believe that there is a need to provide any other Federal funding mechanisms.

SENATOR KASTEN: Do you have any idea of what the amount of any surcharge would have to be?

ANSWER: Security surcharges may be applied to international flights by U.S. air carriers. The Department of Transportation supports the use of a surcharge to finance the purchase of TNA systems. Access systems, however, are the responsibility of airports and can be purchased with funding from the AIP program.

HIRING DELAYS

SENATOR KASTEN: With regard to your request for more staffing, my office has just been through a prolonged situation involving the certification of some equipment by the FAA, through the Office of Airport Standards. I am happy to say that our matter was finally successfully resolved. But it took several months longer than anticipated and involved the temporary transfer of personnel from a wast coast field office to assist the Washington office. How much of this type of delay and personnel transfer is going on at the FAA?

ANSWER: The type of delay that existed within the Office of Airport Standards was unavoidable. There was a backlog of work within the Engineering and Specifications Division as a result of the Division losing 3 electrical engineers within a 6-month period. It is not, however, uncommon for FAA to detail employees from the various regions to assist in backlog situations until vacancies are filled.

QUESTION SUBMITTED BY SENATOR GRASSLEY

SENATOR GRASSLEY: Followup - One of the communities that is having trouble with its essential air service is Clinton, Iowa where the current service to Chicago is provided by basically no more than a charter service company. The plane comes to the community pi8cks up passengers and takes them to Chicago to Butler Aviation where it off loads the passengers. The passengers then have to take their bags and go the other air terminal recheck their bags get their seats and go to the airlines gates. The current service does not enterline with other carriers and really doesn't provide the service that we are paying for. Many times the plane service is not reliable at all and cancels service to the community, which means the service is not at all reliable. This type of service is doomed to fail. I have talked to the community and they are currently reviewing the types of services that the travelers from the community use and see what it would take to get them to start using the airport as opposed to going to another airport for service.

If they decide that they would like a new airline to service their community and if they can prove that the people would use it more if better service were provided would your agency work with them to find a new provider?

ANSWER: We are always willing to work with civic officials to explore more efficient ways to improve the essential air service that is provided by subsidized air carriers.

At the community's request, we could solicit proposals from all carriers interested in providing EAS at Clinton, Iowa. In selecting a carrier to provide service with subsidy, we would carefully consider the views of civic officials, the overall capabilities of the applicant carriers to provide reliable air service, including their contractual and marketing arrangements and interline agreements with larger carriers, the amount of subsidy needed by each applicant, and other relevant factors. We would select the proposal that appears to offer the best combination of service benefits and subsidy costs.

QUESTIONS SUBMITTED BY SENATOR BURDICK

SENATOR BURDICK: As part of its overall interest in human factors research, the Center for Aerospace Sciences at the University of North Dakota is proposing to establish an aerospace physiology training program. The program will focus on how physiological factors such as fatigue may undermine aircrew performance especially during in-flight emergencies. The program will also instruct aircrews in techniques for quick and accurate responses to extremes of altitude, acceleration and thermal stress.

The centerpiece of the proposed program is the only civilian hypobaric chamber training program in the United States. The chamber training offers hands-on experience at recognizing an individual's symptoms of hypoxia, allowing students to recognize its early symptoms while they are still within the average Time of Useful Consciousness for the exposure altitude (3-5 minutes at 25,000 feet).

Considering the increasing age of the American airline fleet and the escalating occurrences of aircraft structural failures, how would the FAA propose working with the Center for Aerospace Sciences to enhance aviation safety through the education and training provided in its aerospace physiological training program?

ANSWER: The FAA has already been working with the University of North Dakota through our Civil Aeromedical Institute as they establish their hypobaric chamber. We are following this program closely. As we continue to develop both the human factors plan and the aging aircraft plan, needs for this type facility may emerge. At that time we would certainly consider use of this facility since it is the only civil (non-Federal) one available.

SENATOR BURDICK: The Administration's budget request provides no funding for the Airway Science program although I understand that the initial budget recommendation at the FAA called for $10 million for the program. In light of increasing concern about attracting competent young people to career FAA positions, which is one of the main goals of this program, what is the agency's rationale for terminating the program?

ANSWER: The President's budget submission has never included a request for Airway Science Grant funds. Funds have been inserted into the appropriations at the initiation of Congress commencing with FY 1982, excluding only FY 1984. The amount appropriated was $10 million in FY 1987, $5,115,000 in FY 1988 and $1 million in FY 1989.

The pay-off from these grants is not immediate, but long term. Airway Science grant funds are dedicated to the acquisition of academic facilities and instructional equipment to help provide a better quality of academic experiences to students pursuing aviation training at the collegiate level. The availability of academic centers with modern facilities and equipment will increase the number of students enrolling in aviation education programs. Upon graduation, these students will enter the professional work force in a broad spectrum of aviation occupations within both the public and private sectors.

SENATOR BURDICK: The University Aviation Association, a consortium of 32 universities engaged in aviation curricula, has been doing some work for the FAA in defining the human factors involved in defining required pilot skills. By agreement within the consortium, the University of North Dakota has been acting as the managing agent for the consortium. I have learned that the FAA may deal directly with a Washington based consulting firm instead of directly with the consortium, and this has alarmed many of the member universities.

Would you please assure us of the FAA's intention to deal directly with the consortium on this multi-phased effort?

ANSWER: At this time the FAA has not decided what form our contract for this work will take. We have discussed the possibility of using a Washington based consulting firm to assist the FAA in managing this complex study. In any case, we do not expect the role of the University Aviation Association Consortium to be substantially changed. Our original intent was to use the educational expertise that exists in those colleges and universities to assist the FAA as we further develop our various regulations and other documents that deal with the human in the system. This has not changed.

QUESTIONS SUBMITTED BY SENATOR COCHRAN

SENATOR COCHRAN: I would appreciate having the FAA's comments on S. 713, as well as any preliminary evaluation the agency may have done on the wayport concept.

ANSWER: The FAA has not completed its review of S.713. That will be completed as soon as possible.

SENATOR COCHRAN: What other alternatives are currently under consideration for providing long-term solutions to the air capacity problem?

ANSWER: The obvious alternatives to wayports are to make more efficient use of the airports that we already have, to expand them, and to build similar airports in or near metropolitan areas. The options for more efficient use include a system of airports that are specialized to perform particular functions, such as reliever airports, and the redistribution of transfer traffic from congested hub airports to conveniently located, uncongested airports.

SENATOR COCHRAN: What are the advantages or disadvantages of the wayport concept versus building new and larger airports in metropolitan areas?

ANSWER: We understand the wayport to be a large new airport in a rural area used primarily for transferring passengers and cargo between planes. The advantages include lower land costs, lower construction and operating costs due to lower wage rates, and reduced opposition due to the sparse population of the surrounding area. The disadvantages include the reluctance of airlines to concentrate many flights in areas that do not generate large amounts of origin and destination passengers, who pay premium fares, and the availability of alternatives that the airlines find more attractive. Wayports will be high risk investments unless the airlines are committed to use them.

SENATOR COCHRAN: Could wayports be utilized by the armed services for national defense purposes?

ANSWER: The Department of Defense would have the final word on this subject. Our impression is that the military already has adequate airport capacity for most purposes and, if additional airports are needed, it is for specialized requirements that wayports may not satisfy.

SENATOR COCHRAN: What period of time would be necessary to implement a wayport plan after a commitment to the concept is made? How does this implementation period compare to the lengths of time that would be necessary to implement other alternatives?

ANSWER: The advocates of wayports have stated that a system could be implemented by 1995. That is an unusually short time for major construction, and I do not know the basis for the estimate. We are not persuaded that the wayport concept is a faster or better solution than other alternatives. I would expect that it would take at least 10 years to design and build a wayport system. Any major new airport would probably require a similar amount of time.

QUESTIONS SUBMITTED BY SENATORS BOSCHWITZ AND DURENBERGER

FAA-MINNESOTA PARTNERSHIP

SENATORS BOSCHWITZ AND DURENBERGER: Where in your budget request for FY 1990 is the funding for the "FAA-Minnesota Partnership's" second phase of the program as agreed to earlier by the FAA?

ANSWER: The FAA is launching a major training initiatives program with the FY 1990 budget. The total program encompasses a number of individual initiatives designed to address the whole spectrum of training needs of the agency. A total redesign of the technical training curriculum is envisioned; our vision also includes significant changes in the way in which the agency develops and conducts its training.

One of the most promising initiatives involves the enhancement of FAA relationships with industry and academia to capture the best training technology available, provide fundamental training in agency technical occupations in the pre-employment arena, and test new training and recruitment concepts.

Continuation of the FAA--Minnesota Partnership will occur within the framework of this initiative. We intend to enter into a number of agreements (up to 6) with academic institutions to develop and establish a college curriculum in air traffic control. Selection of the institutions to participate will be by a competitive procurement, open to all post-secondary, degree-granting institutions, including those affiliated with the Minnesota Partnership.

FAA-MINNESOTA PARTNERSHIP AND UNIVERSITY OF NORTH DAKOTA

SENATORS BOSCHWITZ AND DURENBERGER: What steps is the FAA taking to fulfill the request from the Acting Administrator to implement the FAA-Minnesota program headquartered in Minnesota with cooperating programs with the University of North Dakota for FY 1990 funds?

ANSWER: Institutions affiliated with the Minnesota Partnership will have the opportunity to collaborate with the University of North Dakota in the competition for FY 1990 contracts discussed above.

FAA-MINNESOTA PARTNERSHIP RESOURCES

SENATORS BOSCHWITZ AND DURENBERGER: What resources of time, personnel, and equipment from the FAA are available for the "FAA-Minnesota Partnership" for FY 1990?

ANSWER: The FAA is committed to continuing the partnership with the same level of support it has provided thus far. Accordingly, FAA staff will continue to meet with Minnesota counterparts to explore aviation-related issues and to share information and other resources as permitted by law.

FAA-MINNESOTA PARTNERSHIP AND AIR TRAFFIC CONTROL

SENATORS BOSCHWITZ AND DURENBERGER: What elements of the air traffic control program do you see being implemented with the "FAA-Minnesota Partnership" in Minnesota for FY 1990 funds?

ANSWER: Funds that FAA can commit to the elements of the air traffic control program in the Minnesota Partnership are to be allocated under competitive procurement discussed above. Post-secondary, degree-granting institutions affiliated with the partnership will be eligible to compete for FY 1990 contracts.

SUBCOMMITTEE RECESS

Senator D'AMATO. So we thank you and we are going to adjourn for now. This hearing is concluded.

Our next hearing is May 11, Thursday, 10 in the morning, same room. And there we will be examining the Transportation Trust Funds. And the witnesses will be the CBO and the General Accounting Office.

Thank you.

This hearing is concluded.

[Whereupon, at 12:07 p.m., Thursday, May 4, the subcommittee was recessed, to reconvene at 10 a.m., Thursday, May 11.]

MATERIAL SUBMITTED BY AGENCIES NOT APPEARING FOR FORMAL HEARINGS

[CLERK'S NOTE: The following agencies of the Department of Transportation did not appear before the subcommittee this year. Chairman Lautenberg requested these agencies to submit testimony in support of their fiscal year 1990 budget request. Those statements and answers to questions submitted by the chairman follow:]

DEPARTMENT OF TRANSPORTATION

OFFICE OF THE SECRETARY

STATEMENT OF ELAINE CHAO, DEPUTY SECRETARY

Mr. Chairman and members of the Committee, I am pleased to have the opportunity to discuss the fiscal year 1990 budget request for the Office of the Secretary of the Department of Transportation. The Secretary and I both look forward to a good working relationship with Congress, and especially this Committee, as we develop and manage our transportation programs and policies.

Overall, we are requesting an appropriation of $56.5 million for salaries and expenses of the Office of the Secretary, together with $8.1 million for transportation planning, research and development, and $6.2 million for the working capital fund. Again this year, we are proposing expansion of the Office of Commercial Space Transportation, as well as additional contract funds for policy studies and development of the Department's new accounting system.

For salaries and expenses, total increases of $3.0 million are requested, including $1.6 million for higher personnel costs, and $1.4 million for non-personnel costs. Offsetting reductions are proposed of $600 thousand for the Essential Air Service administrative costs (assuming termination of that program) and $400 thousand for minority business resource center programs, along with a carryover of $444 thousand from FY 1988.

Total staffing funded directly by the salaries and expenses appropriation is proposed at 662 positions in fiscal year 1990, a net reduction of one position from the fiscal year 1989 level. The proposed termination of the Essential Air Service function eliminates 20 positions

(11 FTE), which more than offsets proposed personnel increases, including 13 direct funded positions for the Policy Office, one for the Contract Appeals Board, and five for the Office of Commercial Space Transportation.

The staff increase for the Policy Office proposed in the Reagan Budget was intended to strengthen the Office of the Secretary's capacity in oversight of safety and security issues. Seven of the positions in the Policy Office are now being funded by the modal administrations by reimbursable agreements and six additional were proposed. The Secretary is reassessing the staffing requirements and priorities for the Office of the Secretary and has determined that the proposed increases for Policy should be retained to provide safety and security functions, as well as support for the transportation policy development effort -- one of his top priorities, and to meet the needs for oversight of airline competition and environmental issues.

One additional clerical staff for the Contract Appeals Board is needed to respond to increased workload. Deadlines for hearing cases and rendering decisions are established by law and the current clerical staff is inadequate to process the workload within the directed time deadlines.

The additional positions in the Office of Commercial Space Transportation are requested for the licensing area due to an expected large increase in license applications. Licensing operations conducted by this office require pre-application consultation, as well as review and licensing of launches, new sites, and those payloads falling within DOT's review authority.

We strongly urge the Committee to provide a single appropriation in fiscal year 1990 for salaries and expenses. Statutory limits of office-by-office funding create significant restrictions on our ability to operate

effectively and efficiently. While the two percent transfer authority takes care of minor payroll fluctuations, for 13 of our 15 offices, it is less than the salary of one employee and provides no real flexibility. We intend to be responsive to new challenges, responsibilities, and reporting requirements in our oversight of transportation programs. But to do so, the Secretary requires flexibility in the allocation of his staff resources.

We are proposing to repeal the spending cap on advisory committees. These committees provide an important perspective on the issues facing the Department and we appreciate this Committee's actions to include some relief from the cap in your markup of the FY 1989 supplemental appropriations bill. However, a cap constrains the Department's ability to comply with statutorily authorized advisory committees and take advantage of outside expertise to address issues of concern to the Department. We will certainly do our best to ensure prudent spending on advisory committees, but we also need more flexibility to respond to congressional and secretarial initiatives.

For transportation planning, research and development, we request $8.1 million. This includes $4.5 million for contract studies and research to support policy issues in the Office of the Secretary and for university research. In addition, the request also includes $3.6 million for research and development activities in the Office of Commercial Space Transportation to support its regulatory, safety, environmental, licensing, and policy responsibilities.

We are committed to help American firms compete in the world market for commercial space services. On March 29, we saw the successful suborbital launch of the first U.S.-licensed commercial rocket. Eight additional launches are scheduled for this year, including the first orbital launch.

We are happy to report that the Office of Commercial Space Transportation has issued launch licenses for a total of three launches in 1988 and six U.S. firms now market commercial launch services. These six companies have signed contracts worth more than $500 million in commercial space efforts. In order to prepare for the anticipated increase in activity, additional research is still needed to develop performance based safety standards that will guide the continued formation and growth of a rapidly emerging and technologically complex space industry.

Although the budget proposes to terminate the Essential Air Service (EAS) program, we recognize the Congressional support for this program. Should the basic EAS program be continued in FY 1990, $33 million in subsidy payments and $600 thousand in the Office of the Secretary will be necessary for its operation.

For the working capital fund, we request an obligation limitation of $144.4 million. This increase of $14 million over the FY 1989 level is needed to pay increased costs for GSA space rental, contractual services, communications, utilities, and building maintenance. In addition, we are proposing an appropriation to the working capital fund of $6.2 million for FY 1990, including $4.7 million to continue development of the Departmental Accounting and Financial Information System. We are also requesting $1.5 million to enhance the Department-wide EEO system, develop the Department-wide Uniform Procurement Management System, and begin the first increment of a major OST automation initiative.

QUESTIONS SUBMITTED BY SENATOR LAUTENBERG

ESSENTIAL AIR SERVICE PROGRAM

SENATOR LAUTENBERG: For a couple of years, the Department has suggested the elimination of the essential air service (EAS) program. Please explain the rationale for the Department's position on this.

ANSWER: The EAS program was an important commitment that Congress made to small communities in 1978. Its intent was to assure them a level of continued air service for a ten-year transition period while the national air transportation network adjusted to economic deregulation. In that context, the program has represented a worthwhile use of federal funds. It has resulted in a far more efficient deployment of aircraft in short-haul, thinly-traveled, city-pair markets, has allowed dramatic decreases in airline subsidies, including elimination of any subsidy need for over 200 communities, and has preserved air transportation as intended for virtually all eligible points.

It is the Department's view that the ten-year EAS transition period program served its purpose well and that the majority of communities that now continue to require subsidies for their air service should rely on the marketplace rather than on EAS program guarantees. If Congress considers it essential to fund the program in FY 1990, the Department will work with the Committee to determine an appropriate level, including flexibility to base future program decisions on comparative costs and benefits of maintaining or adjusting air service guarantees at each community, which would be a major step toward a more cost-justified use of federal funds.

SENATOR LAUTENBERG: Which small rural communities now participate in the essential air service (EAS) program? How has the Department determined the impact on these communities of not having the EAS program? Which of these communities receives either rail or bus service, or both?

ANSWER: Under the EAS program, we have been required to issue EAS determinations for each community listed on an air carrier operating certificate issued under Section 401 of the Act and served by one or fewer certificated carriers. The following list reflects the 318 communities in the 48 contiguous states, 2 communities in Puerto Rico, 4 communities in Hawaii, 10 Pacific entities, and 217 communities in Alaska, a total of 551, for which we have issued essential air service determinations that specify the minimum level of service each community is guaranteed under the EAS program. Of the 551 communities, 408 have air service that does not require subsidy support and 143 require subsidy. The 109 points in the

contiguous states, the one point in Puerto Rico, the one point among the Pacific entities, and the 32 points in Alaska that are receiving subsidized service are indicated. For the 109 subsidized points in the 48 contiguous states, we have marked the 19 that have rail service, the 83 that have bus service, and the 17 that have both types of intercity public transportation to alternate air service centers.

In February 1987, the Department submitted to Congress a study on the impact to small and remote communities of the discontinuation of essential air service subsidies. In conducting this study, we sent questionnaires to the civic officials of all the communities. The questionnaire solicited information and comments on the air service needs of the community. We also held a series of six regional meetings to afford all parties an opportunity to submit their views. We analyzed service, traffic and fare data for all subsidized communities in the 48 states. We considered the highway miles between points receiving subsidized air service and alternate air service centers and the availability of other forms of public transportation. In addition, we contracted with the Transportation Systems Center (TSC) for a study of the benefits of scheduled air service provided by subsidized carriers between small communities and major air service hubs. We submitted the following conclusions:

(1) 102 communities in the 49 states (excluding Alaska) were receiving subsidized service or would be shortly. Of these 102, we projected that if the EAS program were eliminated, 24 would probably retain some level of air service, 70 would probably lose all service, and the situation for the remaining 8 communities was uncertain;

(2) of the 70 communities that we expected would lose all service, 43 were enplaning 5 or fewer passengers per day, 23 were enplaning between 6 and 10 passengers per day, and 4 were enplaning between 10 and 13 passengers per day;

(3) of the 70 communities that we expected would lose all service, 33 were 75 miles or less from other communities with air transportation, 29 were between 76 and 150 miles of other cities with air service, and 8 were more than 150 from alternate air transportation;

(4) in Alaska, we concluded that almost all of the 41 communities that were receiving subsidized air service would continue to receive service without subsidy support, although some communities might receive reduced levels of scheduled service, and in some cases might

have to rely on on-demand air taxi services; and

(5) we indicated that points in Hawaii and Puerto Rico and Pacific entities are highly dependent on air service for their transportation, and the major concern is the potential for disruptions in service.

The TSC study concluded that the loss of air service would entail additional costs for travelers that currently use the service. From a sample of 16 communities receiving subsidized air service, the estimated annual benefit to EAS users ranged from $88,200 to $544,600 and averaged $231,025 per community. The annual subsidy costs for these same communities ranged from $145,871 to $427,211 and averaged $259,509 per community. The TSC study found no conclusive evidence of significant economic development benefit having derived from scheduled air service similar to that provided to EAS points, although many communities have alleged that scheduled air service is important to their economic development. Upon closer examination, TSC found that these development benefit claims appear to be made for airports and general aviation facilities, rather than for scheduled air service itself.

COMMUNITIES WITH ESSENTIAL AIR SERVICE DETERMINATIONS THAT SPECIFY THE MINIMUM LEVEL OF GUARANTEED SERVICE

State/Community	Receives: Subsidized Air Service	Bus Service	Rail Service	Both Bus and Rail Service
Alabama				
Anniston	Yes 1/	Yes	Yes	Yes
Dothan	No			
Gadsden	Yes	Yes	No	No
Muscle Shoals/Florence/ Sheffield/Tuscumbia	No			
Tuscaloosa	No			
Arizona				
Flagstaff	No			
Grand Canyon	No			
Kingman	Yes 2/	Yes	No	No
Page	Yes	No	No	No
Prescott	No			
Winslow	Yes 2/	Yes	Yes	Yes
Yuma	No			
Arkansas				
El Dorado/Camden	Yes	Yes	No	No
Fayetteville	No			
Fort Smith	No			
Harrison	Yes	Yes	No	No
Hot Springs	Yes	Yes	No	No
Jonesboro	Yes	Yes	No	No
Texarkana	No			

State/Community	Receives: Subsidized Air Service	Bus Service	Rail Service	Both Bus and Rail Service
California				
Bakersfield	No			
Blythe	Yes	Yes	No	No
Chico	No			
Crescent City	Yes	Yes	No	No
El Centro	No			
Eureka/Arcata	No			
Inyokern	No			
Lake Tahoe	No			
Merced	Yes	Yes	Yes	Yes
Modesto	No			
Orange Cnty/Santa Ana/ Anaheim	No			
Oxnard/Ventura	No			
Palmdale/Lancaster	No 2/			
Red Bluff/Redding	No			
Salinas/Monterrey	No			
San Luis Obispo/ Paso Robles	No			
Santa Barbara	No			
Santa Maria	No			
Santa Rosa	No			
Stockton	No			
Visalia	No			
Colorado				
Alamosa	Yes	No	No	No
Aspen	No			
Cortez	Yes	No	No	No
Durango	No			
Gunnison	No			
Lamar	Yes	Yes	No	No
Montrose/Delta	No			
Pueblo	No			
Steamboat Springs/ Hyden/Craig	No			
Connecticut				
Bridgeport	No			
New Haven	No			
New London/Groton	No			
Florida				
Eglin Air Force Base *	No			
Gainesville	No			
Key West	No			
Melbourne	No			
Panama City	No			
Georgia				
Albany	No			
Athens	No			
Augusta	No			
Brunswick (St. Simons Island)	No			
Columbus	No			
Macon	No			
Moultrie/Thomasville	Yes 2/	Yes	No	No
Valdosta	No			

* Served through Ft. Walton Beach.

State/Community	Receives: Subsidized Air Service	Bus Service	Rail Service	Both Bus and Rail Service
Hawaii				
Hana	No			
Kamuela	No			
Lanai	No			
Molokai	No			
Idaho				
Lewiston/Clarkston	No			
Pocatello	No			
Sun Valley/Hailey/ Ketchum	No			
Twin Falls	No			
Illinois				
Bloomington	No			
Champaign/Urbana	No			
Danville	No			
Decatur	No			
Galesburg	No			
Marion/Herrin	No			
Mattoon/Charleston	No			
Mount Vernon	Yes 2/	Yes	No	No
Quincy, IL/Hannibal, MO	No			
Rockford	No			
Springfield	No			
Sterling/Rock Falls	Yes	Yes	No	No
Indiana				
Bloomington	No			
Elkhart	Yes	Yes	No	No
Kokomo/Logansport/ Peru	Yes	Yes	No	No
Lafayette	No			
Muncie/Anderson/ New Castle	No			
Terre Haute	No			
Iowa				
Burlington	No			
Clinton	Yes	Yes	No	No
Dubuque	No			
Fort Dodge	No			
Mason City	No			
Ottumwa	Yes	Yes	Yes	Yes
Waterloo	No			
Kansas				
Dodge City	Yes	Yes	Yes	Yes
Garden City	Yes	Yes	Yes	Yes
Goodland	Yes	Yes	No	No
Great Bend	Yes	Yes	No	No
Hays	Yes	Yes	No	No
Hutchinson	Yes	Yes	Yes	Yes
Independence/Parsons/ Coffeyville	Yes	Yes	No	No
Liberal/Guymon, OK	Yes	Yes	No	No
Manhattan/Junction City/ Ft. Riley	No			
Salina	No			
Topeka	No			

State/Community	Subsidized Air Service	Receives: Bus Service	Rail Service	Both Bus and Rail Service
Kentucky				
Owensboro	No			
Paducah	No			
Louisiana				
Alexandria	No			
Lafayette	No			
Lake Charles	No			
Maine				
Augusta/Waterville	No			
Bangor	No			
Bar Harbor	No			
Lewiston/Auburn	Yes	Yes	No	No
Portland	No			
Presque Isle/Houlton	No			
Rockland	No			
Maryland				
Hagerstown/ Martinsburg, WV	No			
Salisbury	No			
Massachusetts				
Hyannis	No			
Martha's Vineyard	No			
Nantucket	No			
New Bedford/Fall River	Yes	Yes	No	No
Worcester	No			
Michigan				
Alpena	No			
Battle Creek	Yes 2/	Yes	Yes	Yes
Benton Harbor/St. Joseph	Yes	Yes	No	No
Escanaba	No			
Flint	No			
Hancock/Houghton	No 3/			
Iron Mountain/Kingsford	Yes	Yes	No	No
Ironwood, MI/Ashland, WI	Yes	Yes	No	No
Jackson	Yes	Yes	Yes	Yes
Kalamazoo	No			
Manistee/Ludington	Yes	No	No	No
Marinette, WI/Menominee	Yes	Yes	No	No
Marquette	No			
Muskegon	No			
Pellston	No			
Sault Ste. Marie	No			
Traverse City	No			
Minnesota				
Bemidji	No			
Brainerd	No			
Chisholm/Hibbing	No			
Duluth/Superior, WI	No			
Fairmont	Yes	Yes	No	No
International Falls	No			
Mankato	Yes	Yes	No	No
Thief River Falls	No			
Worthington	Yes	Yes	No	No

State/Community	Receives: Subsidized Air Service	Bus Service	Rail Service	Both Bus and Rail Service
Mississippi				
Columbus	No			
Greenville	No			
Gulfport/Biloxi	No			
Jackson/Vicksburg	No			
Laurel/Hattiesburg	Yes 1/	Yes	Yes	Yes
Meridian	No			
Tupelo	No			
Missouri				
Cape Girardeau/Sikeston	No			
Columbia/Jefferson City	No			
Ft. Leonard Wood	Yes	Yes	No	No
Joplin	No			
Kirksville	Yes	Yes	No	No
Springfield	No			
Montana				
Glasgow	Yes	No	No	No
Glendive	Yes	Yes	No	No
Havre	Yes	Yes	No	No
Lewistown	Yes	Yes	No	No
Miles City	Yes	Yes	No	No
Sidney	Yes	No	No	No
West Yellowstone	No			
Wolf Point	Yes	No	No	No
Nebraska				
Alliance	Yes	Yes	No	No
Chadron	Yes	Yes	No	No
Columbus	Yes	Yes	No	No
Grand Island	Yes	Yes	No	No
Hastings	Yes	Yes	Yes	Yes
Kearney	Yes	Yes	No	No
McCook	Yes	Yes	Yes	Yes
Norfolk	Yes	Yes	No	No
North Platte	Yes	Yes	No	No
Scottsbluff	Yes	Yes	No	No
Sidney	Yes	No	No	No
Nevada				
Elko	No			
Ely	Yes	Yes	No	No
New Hampshire				
Keene	No 2/			
Laconia	Yes	Yes	No	No
Lebanon/White River Jct., VT	No			
Manchester/Concord	No			
New Jersey				
Atlantic City	No			
Cape May	No 2/			
Trenton	No			
New Mexico				
Alamogordo/ Holloman AFB	Yes	Yes	No	No
Carlsbad	No			
Clovis	Yes	Yes	No	No
Farmington	No			
Gallup	No			

State/Community	Receives: Subsidized Air Service	Bus Service	Rail Service	Both Bus and Rail Service
Hobbs	Yes	Yes	No	No
Roswell	No			
Santa Fe	Yes	Yes	No	No
Silver City/Hurley/ Deming	Yes	No	No	No
New York				
Binghamton/Endicott/ Johnson City	No			
Elmira/Corning	No			
Islip	No			
Ithaca/Cortland	No			
Jamestown	No			
Massena	Yes	Yes	No	No
Ogdensburg	Yes	No	No	No
Plattsburgh	Yes	Yes	No	No
Poughkeepsie	No			
Saranac Lake/ Lake Placid	Yes	No	No	No
Utica/Rome	No			
Watertown	Yes	Yes	No	No
White Plains	No			
North Carolina				
Asheville	No			
Fayetteville	No			
Hickory	No			
Jacksonville/ Camp Lejeune	No			
Kinston/Goldsboro/ Greenville	No			
New Bern/Morehead City/ Beaufort	No			
Rocky Mount/Wilson	Yes	Yes	Yes	Yes
Wilmington	No			
Winston-Salem	No			
North Dakota				
Devils Lake	Yes	No	Yes	No
Jamestown	Yes	Yes	No	No
Williston	Yes	No	Yes	No
Ohio				
Akron/Canton	No			
Mansfield	Yes	Yes	No	No
Youngstown	No			
Oklahoma				
Enid	Yes	Yes	No	No
Lawton/Ft. Sill	No			
McAlester	Yes	Yes	No	No
Ponca City	Yes	Yes	No	No
Oregon				
Bend/Redmond	No			
Klamath Falls	No			
Medford	No			
North Bend/Coos Bay	No			
Pendleton	No			
Salem	Yes	Yes	Yes	Yes

State/Community	Receives: Subsidized Air Service	Bus Service	Rail Service	Both Bus and Rail Service
Pennsylvania				
Altoona	No			
Bradford	No			
Clearfield/Phillipsburg/ Bellefonte/State College	No			
DuBois	No			
Erie	No			
Johnstown	No			
Lancaster	No			
Oil City/Franklin	Yes	Yes	No	No
Reading	No			
Williamsport	No			
South Carolina				
Florence	No			
Greenville/Spartanburg	No			
Myrtle Beach	No			
South Dakota				
Aberdeen	No			
Brookings	Yes	Yes	No	No
Huron	Yes	Yes	No	No
Mitchell	Yes	Yes	No	No
Pierre	Yes	Yes	No	No
Watertown	No			
Yankton	Yes	Yes	No	No
Tennessee				
Clarksville, TN/ Ft. Campbell/ Hopkinsville, KY	Yes 2/	Yes	No	No
Jackson	No			
Texas				
Abilene	No			
Beaumont/Port Arthur	No			
Brownsville	No 2/			
Brownwood	Yes	Yes	No	No
College Station/Bryan	No			
Harlingen/San Benito	No			
Laredo	No			
Longview/Kilgore/Gladewater	No			
Mission/McAllen/Edinburg	No			
Paris	Yes	Yes	No	No
San Angelo	No			
Temple	Yes	Yes	Yes	Yes
Tyler	No			
Victoria	No			
Waco	No			
Wichita Falls	No			
Utah				
Cedar City	Yes	Yes	No	No
Moab	Yes	No	No	No
Vernal	Yes	Yes	No	No
Vermont				
Montpelier/Barre	Yes 2/	Yes	No	No
Rutland	No 2/			

State/Community	Receives: Subsidized Air Service	Bus Service	Rail Service	Both Bus and Rail Service
Virginia				
Charlottesville	No			
Danville	Yes	Yes	Yes	Yes
Hot Springs	Yes	No	No	No
Lynchburg	No			
Newport News/Hampton/ Williamsburg/Yorktown	No			
Roanoke	No			
Staunton	No			
Washington				
Ephrata/Moses Lake	Yes	Yes	Yes	Yes
Pasco/Kennewick/Richland	No			
Pullman,WA/Moscow, ID	No			
Walla Walla	No			
Wenatchee	No			
Yakima	No			
West Virginia				
Beckley	Yes	Yes	No	No
Clarksburg/Fairmont	Yes	Yes	No	No
Elkins	Yes	No	No	No
Greenbrier/White Sulphur Springs	No			
Morgantown	Yes	Yes	No	No
Parkersburg	No			
Princeton/Bluefield	Yes	Yes	No	No
Wisconsin				
Appleton	No			
Beloit/Janesville	Yes	Yes	No	No
Eau Claire	No			
Green Bay/Clintonville	No			
LaCrosse	No			
Manitowoc	Yes	Yes	No	No
Oshkosh	No			
Rhinelander/ Land O'Lakes	No			
Wausau/Stevens Point	No			
Wyoming				
Cheyenne	No			
Jackson	No			
Laramie	No			
Lovell/Powell/Cody	No			
Riverton/Lander	No			
Rock Springs	No			
Sheridan	No			
Worland	Yes	Yes	No	No

COMMUNITIES WITH ESSENTIAL AIR SERVICE DETERMINATIONS
THAT SPECIFY THE MINIMUM LEVEL OF GUARANTEED SERVICE

Entity/Community	Receives Subsidized Air Service
American Samoa	
Pago Pago	No
Federated States of Micronesia	
Pohnpei	No
Truk	No
Yap	No
Guam	No
Mariana Islands	
Rota	Yes
Saipan	No
Tinian	No
Marshall Islands	
Kwajalein	No
Majuro	No
Puerto Rico	
Mayaquez	No
Ponce	Yes
Alaska	
Adak Island	No
Akhiok	No
Akiachak	No
Akiak	No
Akutan	No
Alakanuk	No
Aleknagik	No
Allakaket	No
Ambler	No
Ammok Bay	Yes
Anaktuvuk Pass	No
Aniak	No
Angoon	No
Annette Island (Metakatla)	No
Anvik	No
Artic Village	No
Atka Island	Yes
Atmautluak	No
Attu Island	No
Barrow/Point Barrow	No
Barter Island	No
Beaver	No
Bethel	No
Bettles	No
Birch Creek	No
Boswell Bay	Yes
Brevig Mission	No
Buckland	No
Candle	No
Cape Newenham	No
Cape Romanzof	No
Cape Yakataga	Yes
Central	Yes
Chalkyitsik	No

State/Community	Receives Subsidized Air Service
Chathan	No 2/
Chernofski	No
Chevak	No
Chicken	No
Chiformak	No
Chignik	No
Chignik Lake	No
Chignik Lagoon	No
Chisana	No
Chitina	No
Circle	Yes
Clark's Point	No
Cold Bay	No
Cordova	Yes
Council	No
Craig	No
Crooked Creek	No
Deering	No
Dutch Harbor	No
Eagle	No
Eek	No
Egegik	No
Ekuk	No
Ekwok	No
Elfin Cove	No 2/
Elim	No
Excursion Inlet	No
False Pass	No
Flat	No
Fort Yukon	No
Funter Bay	No 2/
Galena	No
Gambell	No
Golden Horn	No
Golovin	No
Goodnews Bay	No
Grayling	No
Gulkana	No
Gustavus	Yes
Haines	No
Hawk Inlet	No 2/
Haycock	No
Hogatza (Hog River)	No
Holy Cross	No
Homer	No
Hoonah	No
Hooper Bay	No
Hughes	No
Huslia	No
Hydaburg	No
Icy Bay	Yes
Igiugig	No
Iliamna	No
Ivanoff Bay	No
Kake	No
Kalskag	No
Kaltag	No
Karluk	No
Kenai	No
Ketchikan	No
Kiana	No
King Cove	No
Kipnuk	No

State/Community	Receives Subsidized Air Service
Kitoi Bay	Yes
Kivalina	No
Klawock	No
Kobuk	No
Koliganek	No
Kongiganak	No
Kotlik	No
Koyuk	No
Koyukuk	No
Kwethluk	No
Kwigillingok	No
Kwiguk (Eaconak)	No
Kwinhagak	No
Lake Minchumina	No
Larsen Bay	No
Lazy Bay/Alitak	Yes
Levelock	No
Manley Hot Springs	No
Manokotak	No
Marshall/Portuna Ledge	No
May Creek	Yes
McCarthy	Yes
McGrath	No
Mekoryuk	No
Minto	No
Moser Bay	Yes
Mountain Village	No
Nakeen	No
Naknek	No
Napakiak	No
Napaskiak	No
New Stuyahok	No
Newtok	No
Noatak	No
Noorvik	No
Nulato	No
Nunapitchuk	No
Nyac	Yes
Old Harbor	Yes
Olga Bay	No
Ouzinkie	No
Parks	Yes
Pelican City	No
Perryville	No
Petersburg	No
Pilot Point	No
Pilot Station	No
Platinum	No
Point Hope	No
Point Lay	No
Porcupine Creek	No
Portage Creek (Ugsonokle)	No
Port Alexander	No
Port Bailey	Yes
Port Heiden	Yes
Port Lions	No
Port Williams	Yes
Prudhoe Bay (Deadhorse)	No
Queen	No
Rampart	No
Red Devil	No
Ruby	No
Russian Mission	No

State/Community	Receives Subsidized Air Service
St. George	Yes
St. Mary's	No
St. Michael	No
St. Paul Island	No
Sand Point	Yes
San Juan/Uganik	Yes
Sarichef/Scotch Cap	No
Savoonga	No
Scammon Bay	No
Seal Bay	Yes
Selewik	No
Seward	Yes
Shageluk	No
Shaktoolik	No
Sheldon Point	No
Shemya Island	No
Shishmaref	No
Shungnak	No
Sitka	No
Skagway	No
Slowentna	No
Sleetmute	No
South Naknek	No
Stebbins	No
Stevens Village	No
Stony River	No
Takotna	No
Tanana	No
Tatalina	No
Teller	No
Tenakee (Tenakee Springs)	No
Terror Bay	Yes
Tikchik Lake	No
Tin City	No
Togiak	No
Toksook	No
Tuluksak	No
Tuntatuliak	No
Tununak	No
Twin Hills	No
Uganik	No
Ugashik	No
Umiat	No
Unnak Island (Nikolski)	Yes
Unalakleet	No
Utopia	No
Valdez	No
Venetie	No
Wainwright	No
Wales	No
West Point	Yes
White Mountain	No
Wiseman	No
Wood River	No
Wrangell	Yes
Yakatat	Yes
Zachar Bay	Yes

1/ Carrier is eligible for compensation, but the carrier's need for subsidy has not been established.
2/ Community is temporarily without air service.
3/ Carrier has filed a notice to suspend its subsidy-free service. We have not determined whether replacement service will require subsidy.

SENATOR LAUTENBERG: Please provide a listing for each of the EAS points, the number of average daily enplanements, the type of service they receive, and the total amount of annual subsidy they will receive.

ANSWER: The listing, covering all points which receive(d) subsidized essential air service in fiscal year 1989 follows. Points in the 48 contiguous states and Puerto Rico are listed separately from points in Alaska and the Northern Marianas. The total subsidy amounts represented by these points are:

48 contiguous states and Puerto Rico	$25,930,917
Alaska and the Northern Marianas	4,255,220
Subtotal	$30,186,137

In addition, the Department expects to settle several claims from carriers for services provided outside FY 1989. These claims combined with the above amount will require that a total of $31.6 million be obligated during FY 1989.

POINTS IN THE 48 CONTIGUOUS STATES
AND PUERTO RICO
WHICH RECEIVE(D) ESSENTIAL AIR SERVICE
IN FY 1989

Essential Air Service Carrier	EAS Points Served	Average Daily Enplanements at EAS Point 1/	Service Received 2/	Total Subsidy Projected to be Paid in FY 1989
Air Kentucky	Owensboro, KY 3/	12.5	Two round trips per service day to Indianapolis with Beechcraft C-99	$ 191,622
	Terre Haute, IN 3/	6.2	Two round trips per service day to Indianapolis with Beechcraft C-99	191,622
American International Resorts/Air LA	Blythe, CA	2.5	Two round trips per service day to Ontario with Piper Navajo	325,186
Air Midwest	Lamar, CO	3.8	Two round trips per service day to Denver with Fairchild Metro	
			One round trip per service day to Wichita with Fairchild Metro	237,837
	Dodge City, KS	7.6	Two round trips per service day to Denver with Fairchild Metro	
			Two round trips per service day to Wichita with Fairchild Metro	237,837

Essential Air Service Carrier	EAS Points Served	Average Daily Enplanements at EAS Point 1/	Service Received 2/	Total Subsidy Projected to be Paid in FY 1989
	Garden City, KS	13.5	Two round trips per service day to Denver with Fairchild Metro	
			Two round trips per service day to Wichita with Fairchild Metro	237,837
	Goodland, KS	2.7	Two round trips per service day to Denver with Fairchild Metro	237,837
	Great Bend, KS	4.5	Two round trips per service day to Kansas City with Fairchild Metro	237,837
	Hays, KS	13.1	Two round trips per service day to Denver with Fairchild Metro	
			Two round trips per service day to Kansas City with Fairchild Metro	237,837
	Hutchinson, KS	0.8	Two round trips per service day to Wichita with Fairchild Metro	237,837
	Independence/ Parsons/ Coffeyville, KS	0.6	One round trip per service day to Tulsa with Fairchild Metro	
			One round trip per service day to Wichita with Fairchild Metro	237,837
	Liberal, KS/ Guyman, OK	9.0	Two round trips per service day to Denver with Fairchild Metro	

Essential Air Service Carrier	EAS Points Served	Average Daily Enplanements at EAS Point 1/	Service Received 2/	Total Subsidy Projected to be Paid in FY 1989
	Fort Leonard Wood, MO	17.6	One round trip per service day to Wichita with Fairchild Metro	237,837
			Two round trips per service day to St. Louis with Fairchild Metro	72,912
Alpine Aviation	Moab, UT	3.0	Two round trips per service day to Salt Lake City with Piper Navajo	172,377
Atlantic Southeast Airlines	Gadsden, AL	2.8	Two round trips per service day to Atlanta with Embraer Brasilia	260,346
	Laurel/Hattiesburg, MS	4/	Two round trips per service day to Atlanta with Embraer Brasilia	260,346
	Anniston, AL	4/	Four round trips per service day to Atlanta with Embraer Brasilia	260,346
Atlantis Airlines	Moultrie/ Thomasville, GA 5/	2.1	Currently not receiving service	155,780
Bemidji Airlines	Mankato, MN	5.3	Three round trips per service day to Minneapolis/St. Paul with Beechcraft Queen Air	281,517
	Worthington, MN	3.2	Three round trips per service day to Minneapolis/St. Paul with Beechcraft Queen Air	281,517

Essential Air Service Carrier	EAS Points Served	Average Daily Enplanements at EAS Point 1/	Service Received 2/	Total Subsidy Projected to be Paid in FY 1989
Big Sky Airlines	Glasgow, MT	4.9	Two round trips per service day to Billings with Cessna 402	132,173
	Glendive, MT	2.9	Two round trips per service day to Billings with Cessna 402	113,937
	Havre, MT	2.9	Two round trips per service day to Billings with Cessna 402	172,174
	Lewiston, MT	1.7	Two round trips per service day to Billings with Cessna 402	172,174
	Miles City, MT	3.6	Two round trips per service day to Billings with Cessna 402	113,937
	Sidney, MT	7.1	Two round trips per service day to Billings with Fairchild Metro	283,863
	Wolf Point, MT	4.2	Two round trips per service day to Billings with Fairchild Metro Cessna 402	132,173
	Williston, ND	16.4	Two round trips per service day to Billings with Fairchild Metro	283,863
Brockway/ Clinton Aero	Massena, NY	14.1	Three round trips per service day to Syracuse with Beechcraft 1900	
			One round trip per service day to Burlington with Beechcraft 1900	166,138

Essential Air Service Carrier	EAS Points Served	Average Daily Enplanements at EAS Point 1/	Service Received 2/	Total Subsidy Projected to be Paid in FY 1989
	Ogdensburg, NY	15.9	Three round trips per service day to Syracuse with Beechcraft 1900	
			One round trip per service day to Burlington with Beechcraft 1900	166,138
	Plattsburgh, NY	40.9	Five round trips per service day to Albany with Beechcraft 1900	
			Six round trips per service day to Burlington with Beechcraft 1900	166,138
	Saranac Lake/ Lake Placid, NY	29.7	Three round trips per service day to Albany with Beechcraft 1900	
			Two round trips per service day to Burlington with Beechcraft 1900 or SAAB SF 340	166,138
	Watertown, NY	26.9	Three round trips per service day to Syracuse with Beechcraft 1900	166,138
Brockway/ Crown Airways	Franklin/ Oil City, PA	33.6	Four round trips per service day to Pittsburgh with Twin Otter	132,540
CCAir	Rocky Mount/ Wilson, NC	69.2	Seven round trips per service day to Charlotte with Shorts 360 and Jetstream 31	129,950

Essential Air Service Carrier	*EAS Points Served	Average Daily Enplanements at EAS Point 1/	Service Received 2/	Total Subsidy Projected to be Paid in FY 1989
	Athens, GA	70.1	Seven round trips per service day to Charlotte with Jetstream 31 or Shorts 360	$ 57,008
	Winston-Salem, NC	75.4	Seven round tirps per service day to Charlotte with Jetstream 31 or Shorts 360	21,529
	Danville, VA	41.8	Six round trips per service day to Charlotte with Jetstream 31	146,489
	Beckley, WV	44.4	Five round trips per service day to Charlotte with Jetstream 31	95,854
	Princeton/ Bluefield, WV	47.6	Five round trips per service day to Charlotte with Jetstream 31	95,854
Direct Air	Kokomo/ Logansport/ Peru, IN	2.1	Two round trips per service day to Chicago with Piper Navajo	404,263
Exec Express II	Enid, OK	1.3	Two round trips per service day to Tulsa with Piper Navajo	186,418
	Ponca City, OK	4.1	Two round trips per service day to Tulsa with Piper Navajo	186,418
	Brownwood, TX	4.9	Two round trips per service day to Dallas/Ft. Worth with Piper Navajo	265,973

Essential Air Service Carrier	EAS Points Served	Average Daily Enplanements at EAS Point 1/	Service Received 2/	Total Subsidy Projected to be Paid in FY 1989
	Camden, AR	4.5	Three round trips per service day to Dallas/Ft. Worth with Piper Navajo	
			Two round trips per service day to Memphis with Piper Navajo	384,094
	El Dorado, AR	4.5	Three round trips per service day to Dallas/Ft. Worth with Piper Navajo	
			Two round trips per service day to Memphis with Piper Navajo	384,094
	Temple, TX	11.7	Five round trips per service day to Dallas/Ft. Worth with Piper Navajo	390,626
	Hot Springs, AR	4.1	Three round trips per service day to Dallas/Ft. Worth with Piper Navajo	384,094
	McAlester, OK	1.8	Two round trips per service day to Dallas/Ft. Worth with Piper Navajo	241,212
	Paris, TX	2.1	Two round trips per service day to Dallas/Ft. Worth with Piper Navajo	241,212
	Harrison, AR	4.9	Two round trips per service day to St. Louis with Piper Navajo	
			Two round trips per service day to Memphis with Piper Navajo	384,094

Essential Air Service Carrier	EAS Points Served	Average Daily Enplanements at EAS Point 1/	Service Received 2/	Total Subsidy Projected to be Paid in FY 1989
	Jonesboro, AR	1.7	Three round trips per service day to Memphis with Piper Navajo	384,094
Executive Air Charter	Ponce, PR	14.7	Two round trips per service day to San Juan with Casa C-212	247,632
GCS Air Service	Mansfield, OH	4.3	Six round trips per service day to Cleveland with Beechcraft B-80	378,628
Golden Pacific	Kingman, AZ 6/	8.2	Currently not receiving service	51,639
	Winslow, AZ 6/	1.8	Currently not receiving service	42,705
GP Express	North Platte, NE	7.8	Two round trips per service day to Lincoln with Beechcraft C-99	
			Two round trips per service day to Omaha with Beechcraft C-99	273,987
	Scotsbluff, NE	7.7	Two round trips per service day to Lincoln with Beechcraft C-99	
			Two round trips per service day to Omaha with Beechcraft C-99	273,897
	Grand Island, NE	12.3	Two round trips per service day to Denver with Beechcraft C-99	426,154
	Alliance, NE	2.4	Two round trips per service day to Denver with Cessna 402	223,899

Essential Air Service Carrier	EAS Points Served	Average Daily Enplanements at EAS Point 1/	Service Received 2/	Total Subsidy Projected to be Paid in FY 1989
	Chadron, NE	1.8	Two round trips per service day to Denver with Cessna 402	223,899
	Sidney, NE	1.7	Two round trips per service day to Denver with Cessna 402	223,899
	Hastings, NE	2.9	Two round trips per service day to Omaha with Cessna 402	223,899
	Kearney, NE	8.3	Two round trips per service day to Denver with Cessna 402	
			Three round trips per service day to Omaha with Cessna 402	223,899
	McCook, NE	3.7	Two round trips per service day to Denver with Cessna 402	223,899
Great Lakes Aviation	Ironwood, MI	7.4	Two round trips per service day to Chicago with Beechcraft 1900	184,329
	Iron Mountain, MI	16.3	Four round trips per service day to Chicago with Beechcraft 1900	184,329
	Ottumwa, IA	2.3	Two round trips per service day to Des Moines with Beechcraft C-99	
			Two round trips per service day to to Minneapolis/St. Paul with Beechcraft C-99	229,370

Essential Air Service Carrier	EAS Points Served	Average Daily Enplanements at EAS Point 1/	Service Received 2/	Total Subsidy Projected to be Paid in FY 1989
	Menominee, MI/ Marinette, WI	6.2	Four round trips per service day to Chicago with Beechcraft 1900	364,485
	Manistee/Ludington, MI	7.1	Two round trips per service day to Chicago with Beechcraft C-99	364,485
	Manitowoc, WI	2.6	Two round trips per service day to Chicago with Beechcraft C-99	364,485
	Fairmont, MN	4.4	Two round trips per service day to Minneapolis/St. Paul with Beechcraft C-99	302,942
Horizon Air	Salem, OR	5.3	Three round trips per service day to Portland with Fairchild Metro	110,307
	Moses Lake, WA	11.2	Four round trips per service day to Seattle/Tacoma with Fairchild Metro	157,916
Iowa Airways	Benton Harbor/ St. Joseph, MI	10.5	Five round trips per service day to Chicago with Embraer Bandeirante	249,252
	Elkhart, IN	11.6	Five round trips per service day to Chicago with Embraer Bandeirante	249,252
Mesa Air Shuttle	Clovis, NM	9.8	Two round trips per service day to Albuquerque, with Beechcraft C-99	209,795
	Gallup, NM 7/	18.5	Three round trips per service day to Phoenix with Beechcraft 1900	15,435

Essential Air Service Carrier	EAS Points Served	Average Daily Enplanements at EAS Point 1/	Service Received 2/	Total Subsidy Projected to be Paid in FY 1989
	Hobbs, NM	10.4	Three round trips per service day to Albuquerque with Beechcraft 1900	55,387
	Silver City, NM	7.3	Three round trips per service day to Albuquerque with Beechcraft C-99	164,149
	Santa Fe, NM	18.0	Seven round trips per service day to Santa Fe, with Cessna Caravan	132,282
	Alamogordo, NM	9.4	Two round trips per service day to El Paso with Beechcraft 1900 and Beechcraft C-99	149,977
	Worland, WY	4.1	Three round trips per service day to Denver with Beechcraft C-99	363,604
Mesaba Aviation	Brookings, SD	6.8	Two round trips per service day to Minneapolis/St. Paul with Fairchild Metro	106,104
	Huron, SD	9.6	Two round trips per service day to Minneapolis/St. Paul with Fairchild Metro	106,104
	Mitchell, SD	3.3	Two round trips per service day to Minneapolis/St. Paul with Fairchild Metro	106,104

Essential Air Service Carrier	EAS Points Served	Average Daily Enplanements at EAS Point 1/	Service Received 2/	Total Subsidy Projected to be Paid in FY 1989
	Devils Lake, ND	6.6	Two round trips per service day to Minneapolis/St. Paul with Fairchild Metro	$ 289,422
	Jamestown, ND	12.4	Two round trips per service day to Minneapolis/St. Paul with Fairchild Metro	289,422
Midcontinent	Columbus, NE	1.2	Two round trips per service day to Omaha with Embraer Bandeirante	224,105
	Norfolk, NE	3.8	Two round trips per service day to Omaha with Embraer Bandeirante	224,105
	Yankton, SD	1.9	Two round trips per service day to Sioux Falls with Embraer Bandeirante	224,105
	Kirksville, MO	9.4	Two round trips per service day to Kansas City with Embraer Bandeirante	234,776
MST Aviation	Beloit/Janesville, WI	1.0	Two round trips per service day to Milwaukee with Piper Navajo	258,693
	Jackson, MI 8/	1.2	Two round trips per service day to Detroit with Fairchild Metro II	96,043
	Battle Creek, MI 8/ 9/		Four round trips per service day to Detroit with Fairchild Metro II	96,043

Essential Air Service Carrier	EAS Points Served	Average Daily Enplanements at EAS Point 1/	Service Received 2/	Total Subsidy Projected to be Paid in FY 1989
Precision Valley	Montpelier/ Barre, VT 10/	2.2	Currently not receiving service	93,600
Presidential Airways	Elkins, WV	3.1	Two round trips per service day to Washington with Jetstream 31	647,358
	Clarksburg/ Fairmont, WV	9.4	Three round trips per service day to Washington with Jetstream 31	340,900
	Morgantown, WV	16.3	Three round trips per service day to Washington with Jetstream 31	340,900
	Hot Springs, VA	4.7	Two round trips per service day to Washington with Jetstream 31	106,065
Prime Air	Clarksville, TN/ Ft. Campbell Hopkinsville, KY	1.5	Two round trips per service day to St. Louis with Piper Navajo	$ 304,841
	Mt. Vernon, IL	4.6	Two round trips per service day to St. Louis with Piper Navajo	304,841
Propheter Aviation	Clinton, IA	1.1	Three round trips per service day to Chicago with Cessna 402	226,468
	Sterling/ Rock Falls, IL	3.0	Three round trips per service day to Chicago with Cessna 402	226,468
Rocky Mountain Airways	Pierre, SD	18.4	Two round trips per service day to Denver with Beechcraft 1900	376,017

Essential Air Service Carrier	EAS Points Served	Average Daily Enplanements at EAS Point 1/	Service Received 2/	Total Subsidy Projected to be Paid in FY 1989
Simmons Airlines	Jackson, MI 8/	1.2	Two round trips per service day to Detroit with Shorts 360	395,247
	Sault Ste. Marie, MI	14.1	Two round trips per service day to Detroit with Shorts 360	140,907
	Alpena, MI	13.9	Two round trips per service day to Detroit with Shorts 360	140,907
Sky West Airlines	Ely, NV	7.3	Two round trips per service day to Reno with Fairchild Metro	
			One round trip per service day to Salt Lake City with Fairchild Metro	356,204
	Page, AZ	13.5	Two round trips per service day to Phoenix with Fairchild Metro	177,191
	Cedar City, UT	12.8	Five round trips per service day to Salt Lake City with Fairchild Metro	181,667
	Vermal, UT	5.9	Two round trips per service day to Salt Lake City with Fairchild Metro	191,702
Valley Airlines	Laconia, NH	3.9	Three round trips per service day to Boston with Cessna 402	214,517
	Lewiston/Auburn, ME	0.9	Two round trips per service day to Boston with Cessna 402	227,253

Essential Air Service Carrier	EAS Points Served	Average Daily Enplanements at EAS Point 1/	Service Received 2/	Total Subsidy Projected to be Paid in FY 1989
WestAir	Merced, CA	26.5	Two round trips per service day to Los Angeles with Embraer Bandeirante	
			Four round trips per service day to San Francisco with Embraer Bandeirante	304,823
	Crecent City, CA	6.2	Two round trips per service day to San Francisco with Embraer Bandeirante	143,294

Footnotes

1/ Enplanement data are taken from reports submitted by carriers to the Department's Research and Special Projects Administration for calendar year 1988, annualized as necessary. A service year of 313 days is assumed for all points except Hot Springs, Virginia, for which a service year of 213 days is assumed.

2/ Source Official Airline Guide, May 1, 1989. Service is indicated to the hub(s) for which subsidy is paid. In some instances, communities may receive more service than that for which subsidy is paid.

3/ Air Kentucky was relieved of its essential air service obligation at Owensboro and Terre Haute effective June 1, 1989.

4/ Laurel/Hattiesburg and Anniston have not previously been included in the subsidized EAS program, hence no average emplanement data have yet been developed.

5/ Atlantis ceased all operations on February 14, 1989. Efforts are under way to find a replacement carrier at Moultrie/Thomasville.

6/ Golden Pacific ceased all operations on December 19, 1989. Efforts are under way to find a replacement carrier at Kingman and Winslow.

7/ Mesa ceased receiving subsidy for service to Gallup January 15, 1989; the community now receives service subsidy-free.

8/ MST Aviation was selected to provide EAS at Battle Creek and to replace Simmons Airlines in providing EAS at Jackson. The carrier transition has not yet taken place at Jackson.

9/ No service has been provided recently at Battle Creek, hence no passenger enplanements have been reported.

10/ Precision Valley ceased flying operations on March 10 as a consequence of the Eastern strike. The carrier is attempting to resume operations.

POINTS IN ALASKA AND THE NORTHERN MARIANAS WHICH RECEIVE(D) ESSENTIAL AIR SERVICE IN FY 1989

Essential Air Service Carrier	EAS Points Served	Average Daily Enplanements at EAS Points 1/	Service Received 2/	Total Subsidy Projected to be Paid in FY 1989
Alaska Airlines	Cordova, AK	N/A	Seven round trips per week to Anchorage with B-737 or B-727	$ 256,728
	Yakutat, AK	N/A	Seven round trips per week to Anchorage or Juneau with B-737 or B-727	256,728
	Petersburg, AK	N/A	Seven round trips per week to Juneau or Ketchikan with B-737 or B-727	256,728
	Wrangell, AK	N/A	Seven round trips per week to Juneau or Ketchikan with B-737 or B-727	256,728
	Gustavus, AK	N/A	Seven round trips per week to Juneau with B-737 or B-727 during the peak season	
			Two round trips per week to Juneau with small aircraft (up to ten seats) during the off-peak season	256,728

Essential Air Service Carrier	EAS Points Served	Average Daily Enplanements at EAS Point 1/	Service Received 2/	Total Subsidy Projected to be Paid in FY 1989
Aleutian Air Ltd.	Nikolski, AK	N/A	One scheduled, plus one flag-stop round-trip per week to Dutch Harbor with Beech 18	31,395
Chitina Air Service	Boswell Bay, AK	N/A	One flag-stop round trip per week to Cordova with Cessna 207	5,060
	Icy Bay, AK	N/A	Three round trips per week to Cordova October 1 -- March 31 with Cessna 207	
			Four round trips per week to Cordova April 1 -- September 30 with Cessna 207	49,958
	Cape Yakataga, AK	N/A	Three flag-stop round trips per week to Cordova October 1 -- March 31 with Cessna 207	
			Four flag-stop round trips per week to Cordova April 1 -- September 30 with Cessna 207	49,958
40-Mile Air Ltd.	Circle, AK	N/A	Three round trips per week to Fairbanks with Cessna 207	19,797
	Central, AK	N/A	Three round trips per week to Fairbanks with Cessna 207	19,797

Essential Air Service Carrier	EAS Points Served	Average Daily Enplanements at EAS Point 1/	Service Received 2/	Total Subsidy Projected to be Paid in FY 1989
Harbor Air Service	Seward, AK	N/A	Two round trips per service day to Anchorage during peak season with Cessna	
			Two round trips per week to Anchorage during off-peak season with Cessna	53,331
Peninsula Airways	Atka, AK	N/A	Five round trips per month to Adak with Piper Navajo	374,940
	St. George, AK	N/A	One round trip per week to Cold Bay with Piper Navajo	110,208
	Akhiok, AK	N/A	Three round trips per week to Kodiak April 26 -- October 27 with 8/9 seat aircraft	10,075
			Two round trips per week to Kodiak October 28 -- April 25 with 8/9 seat aircraft	10,075
	Alitak/Lazy Bay, AK	N/A	Six round trips per week to Kodiak April 26 -- October 27 with 8/9 seat aircraft	
			Three flag-stop round trips per week to Kodiak October 28 -- April 25 with 8/9 seat aircraft	10,075

Essential Air Service Carrier	EAS Points Served	Average Daily Enplanements at EAS Point 1/	Service Received 2/	Total Subsidy Projected to be Paid in FY 1989
	Amook Bay, AK	N/A	One round trip per week to Kodiak April 26 -- October 27 with 8/9 seat aircraft Two round trips per month to Kodiak October 28 -- April 25 with 8/9 seat aircraft	10,075
	Karluk, AK	N/A	Three round trips per week to Kodiak with 8/9 seat aircraft	10,075
	Kitoi Bay, AK	N/A	One round trip per week to Kodiak with 8/9 seat aircraft	10,075
	Larsen Bay, AK	N/A	Three round trips per week to Kodiak with 8/9 seat aircraft	10,075
	Moser Bay, AK	N/A	Three round trips per week to Kodiak April 26 -- October 27 with 8/9 seat aircraft One round trip per week to Kodiak October 28 -- April 25 with 8/9 seat aircraft	10,075
	Old Harbor, AK	N/A	Eleven round trips plus six flag-stop round trips per week to Kodiak April 26 -- October 27 with 8/9 seat aircraft	

Essential Air Service Carrier	EAS Points Served	Average Daily Enplanements at EAS Point 1/	Service Received 2/	Total Subsidy Projected to be Paid in FY 1989
			Eight round trips plus two flagstop round trips per week to Kodiak October 28 - April 25 with 8/9 seat aircraft	10,075
	Olga Bay, AK	N/A	Two round trips per week to Kodiak with 8/9 seat aircraft	10,075
	Ouzinkie, AK	N/A	Twelve round trips per week to Kodiak with 8/9 seat aircraft	10,075
	Parks/Uyak, AK	N/A	Three round trips per week to Kodiak April 26 -- October 27 with 8/9 seat aircraft	
			Two round trips per month to Kodiak October 28 -- April 5 with 8/9 seat aircraft	10,075
	Port Bailey, AK	N/A	Six round trips plus six flag-stop round trips per week to Kodiak April 26 -- October 27 with 8/9 seat aircraft	10,075
			One round trip plus five flag-stop round trips per week to Kodiak October 28 -- April 25 with 8/9 seat aircraft	10,075

Essential Air Service Carrier	EAS Points Served	Average Daily Enplanements at EAS Point 1/	Service Received 2/	Total Subsidy Projected to be Paid in FY 1989
	Port Lions, AK	N/A	Twelve round trips per week to Kodiak April 26 -- October 27 with 8/9 seat aircraft	
			Four round trips per week to Kodiak October 27 -- April 25 with 8/9 seat aircraft	10,075
	Port Williams, AK	N/A	One round trip per week to Kodiak with 8/9 seat aircraft	10,075
	San Juan/Uganik, AK	N/A	Three round trips plus six flag-stop round trips per week to Kodiak April 26 -- October 27 with 8/9 passenger aircraft	
			One round trip per week to Kodiak October 28 -- April 25 with 8/9 passenger aircraft	10,075
	Seal Bay, AK	N/A	One round trip per week to Kodiak with 8/9 passenger aircraft	10,075
	Terror Bay, AK	N/A	One round trip per week to Kodiak with 8/9 passenger aircraft	10,075

Essential Air Service Carrier	EAS Points Served	Average Daily Enplanements at EAS Point 1/	Service Received 2/	Total Subsidy Projected to be Paid in FY 1989
	West Point, AK	N/A	One round trip per week to Kodiak with 8/9 passenger aircraft	10,075
	Zachar Bay, AK	N/A	One round trip per week to Kodiak with 8/9 passenger aircraft	10,075
Reeve Aleutian	Port Heiden, AK	N/A	Six round trips per week to Anchorage during the summer with YS-11	
			Four round trips per week to Anchorage during the winter with YS-11	725,000
	Sand Point, AK	N/A	Six round trips per week to Anchorage during the summer with YS-11	
			Four round trips per week to Anchorage during the winter with YS-11	725,000
Bering Air	Cape Lisburne, AK	N/A	3/	26,367
Friendship Air Alaska	Nyac, AK	N/A	4/	1,198
	Cape Newenham, AK	N/A		8,314

Essential Air Service Carrier	EAS Points Served	Average Daily Enplanements at EAS Point 1/	Service Received 2/	Total Subsidy Projected to be Paid in FY 1989
Ryan Air Service	Nyac, AK	N/A	One round trip every two weeks to Aniak with six-seat aircraft	3,240
Sportsman Flying Service	McCarthy, AK	N/A	One round trip per week to Gulkana with Cessna 185 or 207	9,354
	May Creek, AK	N/A	One round trip per week to Gulkana with Cessna 185 or 207	9,354
Continental Air Lines/ Air Micronesia	Rota, Northern Marianas	5/	Three round trips per week to Guam and Saipan with B-727	557,884

F O O T N O T E S

1/ Unlike the service provided in the 48 contiguous states and Puerto Rico the essential air service underwritten by the Department for communities in Alaska is keyed to the carriage of material quantities of air cargo and mail in addition to passengers, such that consideration only of daily enplanements for these points would distort understanding of the nature of the service being provided.

2/ Source: Individual rate orders authorizing subsidy for the carriers serving the EAS points. The service indicated here is thus the minimum service which each community is to receive from the subsidized carrier.

3/ Cape Lisburne ceased to receive subsidized scheduled air service on May 29, 1989. The Department is not currently seeking service for the point.

4/ Friendship Air Alaska went out of business on February 14, 1989. The community of Nyac is currently receiving scheduled air service from Ryan Air Service on an emergency basis. Cape Newenham is without scheduled air service, but the Department is not currently seeking service for the community.

5/ Data not reported for this community.

SENATOR LAUTENBERG: For fiscal year 1989, it appears as though $31.6 million will be necessary to fund the EAS program under current law. What is the Department's estimate for the program's needs in FY 1990?

ANSWER: The Department estimates that $33 million would be required to maintain the current EAS program in fiscal year 1990. Implementation of the elements of the law that are designed to expand the program would require an additional $12 million, or $45 million for the fiscal year.

SENATOR LAUTENBERG: Of the FY 1990 needed funding, how much of this is because of an expanded program?

ANSWER: $12 million of the total $45 million.

SENATOR LAUTENBERG: What new points or types of service does the Department expect could be provided in FY 1990 under the Act of 1987?

ANSWER: The basic EAS service is estimated to cost $33 million in FY 1990. The Department has estimated that the higher service levels contemplated by the new, expanded EAS requirements of Public Law 100-223, could be implemented for an annual cost of $12 million, itemized as follows:

	(millions)
Larger minimum aircraft size	$ 2.8
Pressurized aircraft	1.7
Reduction of intermediate stops	2.6
Load-factor-related service increases	0.9
Changes in hubs	1.5
Increased compensation for continued service/emphasis on code-sharing arrangements	2.5
Total	$12.0

In addition, the Department would incur costs associated with service to new points and enhanced service at currently eligible communities under the provisions of use-or-lose tests or subsidy-sharing arrangements. However, we project that these costs would be covered within the $45 million estimate for basic and expanded service for FY 1990 since, as a practical matter, the Department would not be able to fully implement each service upgrade at all communities for the full fiscal year. New subsidy rates would have to be negotiated for the new service patterns and levels and, in some cases, carriers would have to acquire new aircraft. It is clear that all these steps could not be implemented by October 1, 1989.

SENATOR LAUTENBERG: How many people in the Office of the Secretary currently work on the essential air service program? What would have happened to these personnel under the Department's plan to terminate the program?

ANSWER: Currently there are 30 people working on the essential air service program. If the program were terminated, and the individuals could not be placed in existing Office of the Secretary vacancies, the Policy Office would institute a

reduction in force. It would certainly be our desire to reassign these individuals to other areas that are understaffed, both within and outside the aviation area.

SENATOR LAUTENBERG: Briefly explain how the subsidized points are included in the current program, what new points might be added to the program in the near future, and the basis the Department uses to negotiate the subsidy level air carriers are to receive.

ANSWER: Subsidized points included in the current program are those points which have a statutory right to have their essential air service maintained, established originally by section 419(a) of the Federal Aviation Act of 1958, as amended, and affirmed by sections 419(a) and 419(b) of Public Law 100-223. The Department has set essential air service determinations for these points by orders prepared under the guidelines set forth in 14 CFR 398.

New points which might be added to the program in the near future could fall into one of two categories. The first includes points which currently receive unsubsidized essential air service, but at which the incumbent air carriers may file notice of their intent to suspend, terminate, or reduce service to below the essential air service levels. Carriers need not provide any justifications as to why they wish to suspend service; however, they must fully document their subsidy need before the Department would authorize the payment of subsidy. In these instances, the incumbent carriers would be eligible to receive subsidy after their 90-day notice period, and the replacement would also be eligible to receive subsidy. (On the other hand, there is a possibility that a small number of points may be dropped from the subsidy program if the carriers serving these points are able to achieve successful, profitable operating results and can no longer demonstrate a subsidy need.) In the second category of new points, communities can apply to the Department to be included in the EAS program if they are willing to share the cost of subsidy payments with the Federal government. In either case, the Department has no accurate way of predicting which specific points are likely to be added in the future.

The annual subsidy rates air carriers are to receive are negotiated on a carrier-by-carrier basis. (Actual subsidy is paid monthly after the service has been provided based on the number of flights actually operated.) Any given individual subsidy rate is a function of several variables, including: (a) the number of essential air service communities to be served by the carrier under the subsidy rate in question; (b) the service level to

be provided at each community with the carrier's proposed routing, schedule, and aircraft type; (c) the number of revenue passengers projected and the associated amount of passenger and other revenue projected; (d) the cost levels which the carrier has demonstrated or which can be reasonably projected for the service in question; and (e) the profit element allowed by the Department (calculated at no more than five percent of total operating expense, less interest, applicable to the proposed services).

We generally set final subsidy rates, meaning that the rates are not subject to adjustment either upward or downward, in order to maximize the incentive for carriers to provide the service in the most efficient manner. However, in some cases we set interim rates that are subject to adjustment, for example, when carriers' rate periods have expired and we have not come to agreements on new final rates. In these cases, new final rates will normally be made effective retroactively to the end of the last period, and the final rates may be higher than, lower than or the same as the interim rates.

SENATOR LAUTENBERG: What happens if a community is eligible to receive subsidized service, but the Department cannot successfully negotiate a contract with an air carrier?

ANSWER: Typically, this situation arises in either of two instances: (1) the Department solicits proposals from carriers interested in providing essential air service at a given community, but no prospective applicant comes forward with a proposal; or (2) the Department solicits proposals, and a fit, capable applicant submits a proposal, but the Department is unable to reach agreement with the applicant on a reasonable rate of subsidy. In the first case, the Department has essentially no choice but to reissue solicitations of proposals until fit and reliable applicants submit proposals. In the second case, the Department will exhaust every opportunity to reach agreement, including re-opening negotiations with applicants if need be. If a reasonable agreement cannot be reached, the Department will resolicit proposals from the pool of prospective applicants. Under both examples, the incumbent carrier would be required to continue to provide service until a replacement carrier can inaugurate service.

SENATOR LAUTENBERG: What role does the subsidized community play in the negotiation of these rates and/or in the choosing of the carriers to serve the subsidized points?

ANSWER: In a subsidy case, all applicant carriers are required to serve a copy of their

proposals on the mayor (or equivalent) and airport manager of the affected community as well as the appropriate state agency. Our EAS procedures provide for a period of 10 days for civic parties to file initial comments on the proposals, including views on which aspects of the proposals they wish the staff to examine in greater detail. This could include questions on the carriers' costs, revenues, traffic projections and service levels. The EAS staff then meets with each carrier individually to negotiate a service level and subsidy rate applicable to the carrier if it should be selected to provide the community's essential air service. Any comments or questions the community submits in its initial comments are discussed with the carrier during these negotiations. When the negotiations are concluded with all the carriers and rate agreements have been finalized, a letter that summarizes the results of the negotiations is sent to the community, requesting final comments on the carrier selection issue. The community's final comments, among other factors, are given serious consideration when determining which carrier would be selected to provide the essential air service.

SENATOR LAUTENBERG: Please provide the amount of essential air service funding for each of the past 5 fiscal years, the total number of enplanements, and the average level of subsidy per enplanement. In addition, please identify the air carriers that participated in the program in fiscal year 1989.

ANSWER:

	Estimated Number of Passengers To/From Essential Air Service Points 1/	Total Airline Subsidies Obligated	Average Subsidy per Subsidized Passenger
FY 1984	839,823	$ 35,071,000	$ 41.76
FY 1985	923,355	$ 34,949,000	$ 37.85
FY 1986	683,676	$ 24,291,000	$ 35.53
FY 1987	739,325 3/	$ 26,679,000	$ 36.09
FY 1988	755,000	$ 28,393,000	$ 37.61

1/ For points in Alaska, we have included passenger equivalents for cargo and mail.
2/ Includes all subsidized points except held-in points.
3/ Calendar 1987.

Air Carriers that Provided Essential Air Service in FY 1989

Air Kentucky

American International Resorts/Air LA

Air Midwest

Alpine Aviation

Atlantic Southeast Airlines

Atlantis Airlines

Bemidji Airlines

Big Sky Airlines

Brockway/Clinton Aero

Brockway/Crown Airways

CCAir

Direct Air

Exec Express II

Executive Air Charter

GCS Air Service

Golden Pacific

GP Express

Great Lakes Aviation

Horizon Air

Micronesia

Iowa Airways

Mesa Air Shuttle

Mesaba Aviation

Midcontinent

MST Aviation

Precision Valley

Presidential Airways

Prime Air

Propheter Aviation

Rocky Mountain Airways

Simmons Airlines

Sky West Airlines

Valley Airlines

WestAir

Alaskan Carriers

Alaska Airlines

Aleutian Air

Bering Air

Chitina Air Service

40-Mile Air

Friendship Air Alaska

Harbor Air Service

Peninsula Airways

Reeve Aleutian Airways

Sportsman Flying Service

Northern Marianas Carrier

Continental/Air

ORGANIZATION CHART

SENATOR LAUTENBERG: For the record, please provide an organiation chart for the Office of the Secretary.

ANSWER: The chart is shown below.

OFFICE OF THE SECRETARY

Secretary
Deputy Secretary
Office of Civil Rights
Board of Contract Appeals
Office of Small and Disadvantaged Business Utilization
Office of Commercial Space Transportation
General Counsel
Assistant Secretary for Policy & International Affairs
Assistant Secretary for Budget and Programs
Assistant Secretary for Governmental Affairs
Assistant Secretary for Administration
Assistant Secretary for Public Affairs
Office of Inspector General
Office of Legislation
Office of Litigation
Office of Regulation and Enforcement
Office of Environmental, Civil Rights, and General Law
Office of International Law
Board for Correction of Military Records
Office of Aviation Enforcement and Proceedings
Office of Transportation Regulatory Affairs
Office of International Transportation & Trade
Office of Economics
Office of International Aviation
Office of Aviation Analysis
Office of Safety Program Review
Office of Programs and Evaluation
Office of Budget
Office of Congressional Affairs
Office of Intergovernmental & Consumer Affairs
Office of Technology and Planning Assistance
Office of Personnel
Office of Management Planning
Office of Information Resource Management
Office of Administrative Services and Property Management
Office of Hearings
Office of Acquisition and Grant Management
Office of Security
Office of Financial Management
Office of DAFIS Development and Implementation
Office of Public Information
Office of Congressional and Research
Office of Media Relations and Special Projects
Assistant Inspector General for Auditing
Assistant Inspector General for Investigations
Assistant Inspector General for Policy, Planning & Resources

OST REORGANIZATION

SENATOR LAUTENBERG: Does the Department plan any changes in the organization of the Office of the Secretary? If so, briefly describe those changes and the rationale for them.

ANSWER: There are no specific proposals at this time. Rather than institute organizational changes, the Secretary is likely to add responsibilities or redirect current emphasis. Some of the activities that are and will change the focus of OST organizations include:

— implementation of the President's directive to establish MBO systems;
— development of the national transportation policy; and
— creation of task forces to address high priority issues

Finally, as the Secretary has frequently said, he believes in relationships, not reorganization, as the more effective management tool.

OST APPROPRIATIONS BY OFFICE

SENATOR LAUTENBERG: The Department has appealed the House and Senate Appropriations Committees' practice of earmarking specific funding for each of the offices within the Office of the Secretary. Briefly explain why the Department feels that this hinders organizational effectiveness.

ANSWER: As stated in the OST FY 1990 Congressional budget submission, the restrictions imposed by office-by-office appropriations leave very little flexibility within OST and severely limits the Secretary's ability to shift resources to meet workload changes. The individual office allocations also increase the workload on the accounting and budget staffs, given the extensive micro-management and detailed accounting and budgetary controls and procedures that are necessary.

Although transfer authority is permitted in FY 1989 of up to 4% for each appropriation, this provides only minimal relief since the amount permitted under the transfer authority is less than the salary of one person for six of our offices and less than the salary of two persons for five other offices. A lump-sum appropriation would allow the Secretary the flexibility afforded to all Federal agency heads, excepting Agriculture and Transportation, to fund new initiatives or emergency situations as they arise.

SCHEDULE C/SES POSITIONS

SENATOR LAUTENBERG: How many "C Schedule" personnel and SES personnel are located within the Office of the Secretary? For the record provide the number of SES and C Schedule personnel by the office, for both fiscal years 1989 and 1990.

ANSWER: The information follows.

Due to the change of Administration, and the subsequent hiring of new Assistant Secretaries, it is extremely difficult to predict the ultimate distribution of Schedule C appointees within the Office of the Secretary at this time. We estimate that the total number in FY 1989 and FY 1990 will be approximately the same as the current total on board.

Office of the Secretary
Schedule C Positions

As of May 31, 1989

Organization	Positions Filled		
	PERM	TEMP	TOTAL
Secretarial Offices	6	7	13
Public Affairs	4	4	8
Governmental Affairs	2	7	9
General Counsel	0	0	0
Budget and Programs	0	2	2
Policy and International Affairs	0	3	3
Administration	1	1	2
TOTAL	13	24	37

Office of the Secretary
Total Senior Executive Service Positions

As of May 31, 1989

Organization	Positions Filled	FY 89/90 Allocation
Secretarial Offices	8	9
Public Affairs	1	2
Governmental Affairs	2	3
Budget and Programs	5	6
General Counsel	9	10
Policy and International Affairs	15	15
Administration	14	17
TOTAL	54	62

PERFORMANCE BONUS AWARDS

SENATOR LAUTENBERG: Of the total amount requested for the Office of the Secretary, what is included for performance bonus awards in FY 1989?

ANSWER: In FY 1989, $540,018 was paid for FY 1988 performance bonus awards. In FY 1990, we estimate $500,000 will be paid for FY 1989 performance awards.

OST FUNDING/STAFFING

SENATOR LAUTENBERG: Provide the FY 1989 estimate and the FY 1990 budget request by individual line item appropriation. In addition to providing the funding level for each item, include the number of personnel associated with that funding level for both fiscal years 1989 and 1990.

ANSWER: The information follows.

OFFICE OF THE SECRETARY
(dollars in thousands)

	FY 1989 ESTIMATE		FY 1990 REQUEST	
S&E DIRECT	TOTAL$	FTE	TOTAL$	FTE
GEN COUNSEL	6,000	97	6,256	100
POLICY-EAS	1,727	29	1,105	18
POLICY-OTHER	7,950	136	8,742	147
BUDGET & PROG	2,241	36	2,285	36
GOVT AFFAIRS	2,265	44	2,309	44
ADMINISTRATION	24,300	170	25,889	170
PUBLIC AFFAIRS	1,455	28	1,336	25
SECR OFFICES	8,604	98	8,559	105
S-1 (SECR)	1,071	14	1,090	14
S-2 (DEP SEC)	464	9	521	10
S-10 (EX SEC)	824	20	840	20
S-20 (APP BD)	440	6	488	7
S-30 (CIV RTS)	1,305	23	1,315	23
S-40 (OSDBU)	915	16	900	16
S-40 (MBRC-$)	3,000	0	2,600	0
S-50 (OCST)	585	10	805	15
SUBTOT S&E	54,542	638	56,481	645
REIMBURSABLE	0	27	0	22
TFRED	5,600	32	8,126	32

WORKING CAP FUND	[130,359]	317	[144,409]	317
W.C.F. APPROP.	3,200	0	6,150	0
PNTS-AIR CARR.	31,600	0	0	0
TOTAL OST	94,942	1,014	70,757	1,016

NOTE: FY 1989 PAC includes supplemental appropriation
FY 1990 Salaries and Expenses submitted as lump sum appropriation
FY 1990 reflects transfer of 3 FTE (and associated funding) from the Public Affairs Office to the Office of General Counsel as part of the Freedom of Information Act function (effective 2/26/89)

OFFICE OF SAFETY PROGRAM REVIEW

SENATOR LAUTENBERG: Within the Assistant Secretary for Policy and International Affairs Office is the Office of Safety Program Review, which contained seven reimbursable positions in FY 1989. In FY 1990, the Department is asking for a total of 13 positions. Why does the Department feel that this increase is necessary?

ANSWER: The Office of Safety Program Review was created in January 1988 to establish the institutional capability within the Department to assess the rapidly changing transportation environment and to identify the most effective role for each of the Department's programs to keep in tune with changing industry structures and technological advances.

At the time the Office was created, resources for FY 1988 had already been distributed and the FY 1989 budget preparation process was too far advanced to accommodate this change. As a result, establishment of the Office required reallocating existing resources which only permitted the hiring of a small core staff funded by reimbursements from operating administrations. In order to continue its current work and assume expanded functions, such as spearheading efforts to develop and implement a National Transportation Policy, the Office needs additional staff. The 13 direct funded positions requested in the FY 1990 budget will enable the Office to fulfill its mission and responsibilities. Without the additional staff, the Office will be limited in its ability to conduct essential policy, program and management analysis and effectively advise the Assistant Secretary and the Secretary on important crosscutting transportation policy issues.

SENATOR LAUTENBERG: What specific products has this office produced in FY 1988, what products has or will it produce in FY 1989, and what will its major mission and undertaking be in FY 1990?

ANSWER: Fiscal Year 1988 saw the transition from the Safety Review Task Force to the Office of Safety Program Review. In FY 1988, the Task Force issued a report on Coast Guard activities pertaining to commercial vessel safety, port safety, recreational boating, search and rescue, and aids to navigation. The report cited containerized shipments of hazardous materials as a significant safety issue. It recommended that the Coast Guard and the Research and Special Programs Administration jointly establish and coordinate an inspection program to reduce the number and severity of hazardous materials violations occurring in containerized cargo shipping.

The Office conducted a comprehensive review of domestic airport security policies and practices in conjunction with FAA field staff. It concluded that FAA initiatives had resulted in greater accountability, improved access controls, additional inspections, increased enforcement, and enhanced explosives detection. The report contained recommendations to further improve and strengthen domestic aviation security.

The Task Force's report on RSPA's Pipeline Safety Program was released in early FY 1989. The Task Force concluded that the RSPA's Pipeline Safety Program is generally effective in reducing the risks to the public inherent in the transportation of natural gas and hazardous liquids by pipeline. It found, however, problems with the pipeline safety enforcement program and recommended that RSPA develop internal guidelines on the type and severity of sanctions that should be applied to violators of pipeline safety regulations. The Task Force also made recommendations on the areas of program administration and data collection and analysis.

In FY 1989, the Office is conducting internal reviews and analyses on other aviation security issues and is examining alternatives to the motor carrier safety fitness rating process. In addition, the Office is leading the outreach effort for soliciting and considering positions and recommendations from industry, labor, government, and other interest groups for formulating a National Transportation Policy. The Office is also providing leadership for the Secretary's study on airline competition.

In FY 1990, the Office will continue to play an active role in implementing the Secretary's National Transportation Policy, developing and assessing Departmental strategies, and examining cross-modal issues to identify ways of improving program delivery and effectiveness.

ASSISTANT SECRETARY FOR ADMINISTRATION

SENATOR LAUTENBERG: The Assistant Secretary for Administration is responsible for automated systems policy and real and personal property management. What is the status of the Department's existing lease agreements with GSA, specifically, when does the lease expire on the NASSIF Building, when does the lease expire on the Transpoint, and is there a lease on FB-10A?

ANSWER: The lease for the Nassif Building expires January 1, 1990. GSA is currently taking action to extend the Nassif lease. The lease for the Transpoint Building expires May 15, 1993. The Federal Building 10A is a government owned and operated building and therefore has no lease.

SENATOR LAUTENBERG: What is the total amount of square footage under the existing lease for the Nassif Building?

ANSWER: The DOT occupies a total of 1,079,345 square feet of space plus the 551,400 square feet in the garage resulting in a grand total of 1,630,745 square feet in the Nassif Building.

SENATOR LAUTENBERG: How was the expiration of the Nassif Building lease accounted for in the request for FY 1990 funds?

ANSWER: The FY 1990 budget request includes RENT costs for the Nassif Building for the entire year. Although the current lease expires in January 1990, GSA is preparing to negotiate with the lessor to continue to lease the Nassif space.

SENATOR LAUTENBERG: How will this lease expiration affect future rental costs for the Department of Transportation?

ANSWER: It should have no impact as far as the Department is concerned. DOT can expect to continue to pay RENT for the Nassif space at the rate established by GSA which reflects market lease rates rather than the lease rate GSA is actually paying the building owner. GSA could increase the rate, however, it would continue to be based on the local commercial equivalent rate and coordinated through OMB.

SENATOR LAUTENBERG: Seventy percent of the increased costs for this office, or $973,000 is associated with the increased space rental rate for FY 1990. Provide for the record the space rental rates for fiscal years 1988, 1989 and projected for 1990. In addition, provide the total amount of square footage leased by the Department for fiscal years 1988, 1989 and 1990.

ANSWER: The increase appears large because the FY 1990 budget is based on GSA rates whereas rates for prior years were limited by General Provisions in Appropriations Acts. Rates for Nassif office space follow:

	FY 1988	FY 1989	FY 1990
DOT PAID RATE	$22.95	$23.41	$27.82
GSA BILLED RATE	$27.00	$27.34	$27.82

GSA leased the following space on behalf of the Office of the Secretary.

	FY 1988	FY 1989	FY 1990
SQUARE FEET LEASED	487,733	460,235	460,235

SENATOR LAUTENBERG: Communications and utility costs also increased. Are these cost increases associated with increased usage, or an increased rate? Please explain.

ANSWER: Communications costs increased by 7.5% with both rate and usage being factored into our request. Increases in general system expansion (1600 lines) resulted in additional usage and maintenance changes. Rates have not increased substantially (approximately 4%) and our telephone costs continue to be approximately $6.00 per line less then current GSA Centrex. Also included in the budget are one time initiatives for a DOT Headquarters Local Area Network and implementation of voice mail services.

The increase for overtime utilities is due to a rate restructure by the utility company which eliminated our high consumption discount.

SENATOR LAUTENBERG: Increased funding for costs associated with publishing are also requested. Please explain how the $147,000 increase will aid in the Department's effectiveness.

ANSWER: Of this amount, $47,000 is requested for quick copy service. This includes a projected rate increase as well as OST's share of the cost of upgrading the copy centers with replacement equipment. The equipment is old and requires extensive maintenance. Moreover, the quality of copies produced has deteriorated. This request also includes $100,000 as our best estimate for inflation and for increased levels of printing requirements.

OFFICE AUTOMATION

SENATOR LAUTENBERG: You are asking for $508,000 to acquire micro-computer workstations and communications conductivity that would replace and expand upon the current system, adopting a more user-friendly technology. Please explain what you mean by "user-friendly technology." What kinds of equipment are you talking about? How would it expand upon the effectiveness of the current system within this office?

ANSWER: The $508,000 we are asking for is to acquire micro-computer workstations and communications connectivity that would replace and expand upon the current system, adopting a more user-friendly technology. The current system is inadequate to support automation needs of the Office of the Secretary (OST). The vast majority of OST personnel are clerical and professionals. Very few of these people are technically-oriented and need automation that is simple to use yet provides a wide range of capabilities. The preponderance of OST's functions focus on data collection, analysis, the generation of policy and regulations, and the communication of information within the Department and to other federal agencies and the public. These are generic functions that lend themselves very well to automation. We plan to install systems that are easy to use. These easy to use or "user friendly technology" types of systems are menu-driven or use icons (pictures), so that the user can easily get into the system, manipulate data, create and transfer documents. The user friendly technology is offered through off-the-shelf kinds of equipment and software.

The new system investment will expand upon the effectiveness of the current system within this office because it will allow us to collect, access, manipulate, and distribute more accurate information in a more timely manner. This will be achieved by reducing duplicate files and the need to reenter the same data multiple times. Utilizing off-the-shelf kinds of networked equipment and software improves the ability to share the

information, standardizes training, and provides better service for customer support and maintenance.

PUBLIC AFFAIRS OFFICE

SENATOR LAUTENBERG: The Department is estimating that the other costs associated with this department will increase by $11,000. Why is that?

ANSWER: In Fiscal Year 1989, other costs are estimated at $59,000 and our request in Fiscal Year 1990 is for $48,000, resulting in a net decrease of $11,000 in contracts.

SENATOR LAUTENBERG: How much travel funding is associated with the Assistant Secretary for Public Affairs Office? How does this compare between FY 1988, 1989, and 1990?

ANSWER: The following table reflects a comparison of travel funding between FY 1988, 1989, and 1990.

1988	1989	1990
$10,000	$13,000	$13,000

SECRETARIAL OFFICES

SENATOR LAUTENBERG: The Department requests an additional $402,000 in personnel compensation under secretarial offices, including an additional 6 positions. Please explain the need for these positions and how they will be used.

ANSWER: One additional clerical position is requested by the Contract Appeals Board. This request is based upon the increasing workload of the Board — more than a 50 percent caseload increase since FY 1980, coupled with growing complexity of cases, while clerical support continues to be provided by one person. Currently, there is only one clerical position in the Contract Appeals Board office and it is not sufficient to handle the increasing workload of the 4 administrative judges. Under current legislation, appeals are to be resolved within 120 days for small claims and 180 days for others. These time limitations cannot be met with the current staffing.

Five additional positions are requested for the Office of Commercial Space Transportation to handle the increased workload in the licensing program. The United States is moving into an era of private commercial space operations. To date, OCST has reviewed six launch applications and issued launch licenses to three companies. In 1989, we expect to review over a dozen license applications and in 1990, we anticipate up to two dozen applications.

AUTOMOBILE EMISSIONS

SENATOR LAUTENBERG: Automobiles contribute a third of all carbon dioxide production in the United States, which many believe leads to the "greenhouse effect." What studies or efforts is the Department undertaking regarding automobile emissions and exhaust, specifically CO_2 production, and does the Department have any studies underway regarding the greenhouse effect?

ANSWER: The Department of Transportation shares the President's concern for achieving environmental protection through a program that will, among other objectives, reduce pollutants from automobile emissions, particularly CO_2. To the extent that transportation fuel conservation is associated with a lower volume of emissions, the CAFE standards for passenger automobiles are an important factor in controlling the total volume of CO_2 emissions from the national automobile fleet. The National Highway Traffic Safety Administration (NHTSA) has addressed this issue in its study of CAFE standards for the model years 1989-90. It found that a 27.5 m.p.g. standard could, in comparison with a 26.5 m.p.g. standard, result in a decrease of up to 0.13 percent of CO_2 emissions over the lifetime of that fleet. NHTSA is now doing an environmental impact study on the effects of the whole CAFE program. The Transportation Systems Center has scheduled a seminar later this year that will explore the potential of further reductions in the CAFE standards with respect to the total production of CO_2 and other pollutants. The Urban Mass Transportation Administration is supporting demonstration of alternative clean fuel buses by public transportation agencies. We have no studies that directly address the greenhouse effect in a broader context.

RAISING THE FUEL TAX

SENATOR LAUTENBERG: Many have stated that the most effective way to spur conservation is to raise the cost of fossil fuels to the consumer. What is the Department's position on this statement? Does the Department believe that the raising of the cost of fossil fuels through the use of excise taxes is an effective way to: (1) spur conservation; and (2) help reduce the volume of carbon dioxide production in the United States?

ANSWER: Raising the price of motor-fuels by increasing the excise taxes is not an appropriate way of curbing consumption. The Department has been consistently opposed to raising the motor-fuel taxes to reduce the deficit, or for any other non-transportation purpose. Several studies have shown that fuel tax increases would result in slower economic growth and reductions in other tax revenues. Additionally, a gas tax increase would particularly harm lower wage earners, families with both spouses working, farmers, persons in certain occupations, such as sales representatives, and residents of States who have to drive long distances for services. President Bush has recently announced his proposals for the Clean Air Act; these include a new initiative to promote alternative fuels to reduce pollution from motor vehicles. This effort is a more effective way of reducing the volume of carbon dioxide produced rather than increasing the cost of fuel through the use of additional motor-fuel taxes. (However, if alternative fuel use increases, gas tax exemptions for such fuels should be revised to protect against revenue loss from the Highway Trust Fund.)

SENATOR LAUTENBERG: Regarding excise taxes, would the Department support the raising of excise taxes on gas or other fuels, as a part of providing more funding for highway spending or transportation spending in general?

ANSWER: The Department is opposed to any increase in motor-fuel taxes for any purpose, even transportation, at this time. We are

looking for more efficient and effective ways to use the resources derived from the current motor-fuel taxes for highway and mass transit projects. However, exemptions for alternative fuels from the current tax should be reassessed to protect against revenue loss from the Highway Trust Fund.

Coast Guard User Fees

SENATOR LAUTENBERG: The Department has promoted and asked for increased user fees for Coast Guard-related activities. For the record, provide a breakdown of the increased user fees the Department expects or can expect to receive by charging for Coast Guard services. Briefly explain what the Department is doing to promote this concept, especially within Congress.

ANSWER: The Department has submitted draft legislation which would recover about $180 million in Coast Guard user fees from commercial and recreational boaters who use our Nation's waterways. Under this draft legislation, about $153 million would be collected through sale of a $25 "stamp" to all boaters. An additional $27 million would be recovered through charges for direct Coast Guard services to commercial vessels and marine personnel. The Department has been exploring options for working with the Congress on alternatives to the Department's proposal which would increase the user fee recovery to about $200 million through a combination of "stamp" sales and direct charges.

TAX TRIGGER

SENATOR LAUTENBERG: The Department assumed that the trigger tax would be repealed before the loss of the approximately $1 billion in revenues the airline ticket tax and associated taxes take in. Please describe what the Department is doing in Congress to overturn the trigger tax before it is put into effect.

ANSWER: The Department has reflected repeal of the tax trigger in the FY 1990 budget as proposed legislation. We have provided Congressional staff with materials explaining the facts of the tax trigger, the penalty provision, and the surplus in the Trust Fund.

DRUG TESTING

SENATOR LAUTENBERG: What is the status of the current drug testing rules? Please answer this question for all the modes, and explain the approximate number of employees that would be covered by these drug testing rules for the different modes.

ANSWER: Drug testing regulations for six modes of transportation were published in the Federal Register by the Department on November 21, 1988. Generally, drug testing is not required to begin until December 21, 1989, with variations, according to the implementation schedules in each of the rules. FRA and RSPA recently delayed their initial implementation to January 16, 1990 and April 20, 1990, respectively. Small companies employing fewer than 50 persons generally have an additional

year to implement testing. The FAA and FRA rules provide for submission and approval of company testing plans beginning August 18, 1989 and October 2, 1989, respectively. The implementation date for maritime preemployment testing to begin has been moved back a month to July 21, 1989 at the request of a district court handling a lawsuit involving the USCG rulemaking. Drug testing with international implications, such as testing foreign nationals on U.S. territory, is scheduled to begin on January 1, 1991.

Several lawsuits challenging each of the rules have been filed and are in various stages.

Approximately 4,060,000 transportation industry employees are covered by the drug testing rules. These are broken down by mode as follows:

Aviation	538,000
Highway	3,000,000
Railroad	90,000
Pipeline	116,500
Mass Transit	195,500
Maritime	120,000
	4,060,000

NATIONAL TRANSPORTATION POLICY

SENATOR LAUTENBERG: Secretary Skinner has called for the establishment of a national transportation policy. Briefly describe what resources the Department expects to expend in FY 1990 and by what office these resources will be expended in the development of a national transportation policy. Please explain how long such a national transportation policy will take to be developed, and how it will be explained and transmitted to Congress for implementation.

ANSWER: The Department currently plans to spend about $700 thousand in FY 1990 to complete and publish the results of the national transportation policy, and to work on continuing tasks in assessing long term transportation needs. Of this amount, $350 thousand would be derived from the Transportation Planning, Research and Development (TPR&D) account, to formulate strategies for developing multi-modal policy data in the future and to fund a major management consulting contract. While these items were not specifically included in the FY 1990 TPR&D request to Congress, they are fully consistent with the purposes of this account, and more accurately reflect Secretary Skinner's priorities than the initial budget request. The remainder would be funded through reimbursements from the modes, to pay for miscellaneous support costs (e.g., supplies, ADP, and printing) and personal consulting services.

Oversight of the project is assigned to a Core Group, consisting of the Deputy Secretary, each of the modal Administrators, and the Assistant Secretaries. Personnel on loan from various modes and OST offices, and organized into several

teams, are performing the staff work. The National Transportation Policy Team is generally responsible for producing the report. Six Cluster Outreach Teams are holding hearings around the country, and gathering information for the report. Team member salaries and expenses are being covered by their parent organizations.

Our plan is to complete the policy by January, 1990. We will deliver copies to Congress as soon as the document is released, and look forward to discussing our findings in a series of Congressional briefings. In the meantime, from July 1989 through January 1990, the Department will meet with members of Congress and their staffs to discuss long range transportation issues and solutions.

AIRPORT CAPACITY RESEARCH

SENATOR LAUTENBERG: The Department is asking for a relatively small amount of money to study airport capacity. When will this study be completed, what specific things are going to be studied, and why can't the Department rely solely on FAA for these studies?

ANSWER: We propose to study three related issues that complement FAA's primary research activities relating to airport capacity. We are proposing to concentrate on: (1) economic efficiency and pricing approaches to airport capacity such as peak period pricing; (2) intercity passenger transportation policy that encompasses competing modes, such as auto, rail, and bus; and (3) the total system of facilities that constitute the air transportation system (e.g., the terminal, airport ground access, etc.) and how they interrelate in providing service. We recognize that FAA must concentrate on infrastructure investment issues and programs which are central to solving airport capacity problems. We also believe that more efficient use of existing airport capacity is essential and that transportation policy must be formulated in a broad intermodal context using the advantages and capabilities of all relevant transportation facilities while at the same time improving safety and reducing environmental impacts. This is a very complex and demanding area of research that cannot be solved quickly. With appropriate resources, we would hope to begin to have answers in the next year or two.

FOREIGN OWNERSHIP OF U.S. CARRIERS

SENATOR LAUTENBERG: Briefly describe the safeguards that currently exist which would prevent unwarranted foreign ownership of U.S. air carriers.

ANSWER: The Federal Aviation Act contains safeguards to prevent unwarranted foreign ownership of U.S. carriers. The Act requires that 75 percent of the voting stock of any U.S. air carrier be owned by U.S. citizens and that such a carrier be actually controlled by citizens of the United States. Even where the numerical requirement regarding stock ownership is met, the Department examines a prospective owner carefully to ensure that no foreign entity will be in a position to exert control over a U.S. air carrier.

LEVERAGED BUYOUT REGULATIONS

SENATOR LAUTENBERG: Does the Department have specific rules or regulations governing airline acquisitions that are conducted by using "leveraged buyouts?" What is the Department's position on highly leveraged buyouts in the air carrier industry?

ANSWER: Although the Department does not have any rules or regulations relating specifically to "leveraged buyouts," we do have a rule (14 CFR 204.4) which requires certificated carriers to supply us with continuing fitness information prior to undergoing any substantial change in its operations. We have consistently held that major ownership changes are included among the kinds of changes which require such a filing. The information obtained pursuant to this regulation, together with other information which the Department may request under section 401(r) of the Federal Aviation Act, provides us with a basis for determining whether any particular acquisition, highly leveraged or not, will have a material adverse effect on a carrier's fitness to provide air transportation. Of course, if serious fitness issues are raised we can take appropriate formal action under section 401(r) and, if necessary, modify, suspend, or revoke the carrier's authority.

AIRLINER CABIN AIR QUALITY STUDY

SENATOR LAUTENBERG: The Department is currently studying aircraft cabin air quality, including contaminants due to smoking. When will that study be completed?

ANSWER: We expect to provide the results of the Department's Airliner Cabin Air Quality Study early next year, well in advance of the expiration of the smoking ban now in effect on flights of 2 hours or less.

SMOKING BAN

SENATOR LAUTENBERG: Has the Department seen a positive effect regarding the smoking ban on air flights of two hours or less? If so, please describe.

ANSWER: In carrying out the Airliner Cabin Air Quality Study, the Department is collecting air quality data on both flights on which smoking is permitted and those on which it is banned. Not until the data are analyzed will we be able to quantify any differences in levels of contaminants within airliner cabins.

Complaints made to DOT related to smoking on airlines dropped from 62 in March 1988 to 15 in March 1989 after smoking was banned on domestic flights of two hours or less in April 1988.

SENATOR LAUTENBERG: What has been the reaction of the air traveling public to the present smoking ban? What has been the reaction of the employees who work on those flights?

ANSWER: Consumer complaints to the Department on this issue have typically reflected the responses of the impacted parties. In 1987 following the National Academy of Sciences (NAS) study but

prior to the present ban, unsolicited consumer opinions sent to the Department favored a ban by over 80 to 1 (2,362 in favor, 28 opposed). In the period following the ban, from April 1988 to June 21, 1989, unsolicited opinions from consumers opposed the ban by almost 70 to 1 (89 in favor, 6,107 opposed) with a substantial number of those registering opposition doing so through a common form letter or post card.

Northwest Airlines has indicated that it is satisfied with public response to its decision to ban smoking on all North American flights. Likewise, we understand that flight attendants' unions are satisfied with the two-hour ban and, in fact, would prefer a ban of longer duration.

LANDING SLOTS

SENATOR LAUTENBERG: What is the Department's position regarding the monopoly situation at slot-controlled airports? Does the Department foresee itself issuing rules, regulations, or a notice of proposed rulemaking in this area with the goal of achieving a more fair allocation of landing slots at airports?

ANSWER: While there is some concentration at the high density airports, none of them should be characterized as a monopoly situation. No single carrier controls as much as fifty percent of the traffic at any of the four high density airports. At Chicago O'Hare, which is arguably the most concentrated of the four, the two largest carriers together account for about seventy percent of the traffic.

The Department will be issuing both a final rule and a supplemental notice of proposed rulemaking (SNPRM) on slot allocation shortly. The final rule will implement limited changes to the slot regulations in largely noncontroversial areas. The SNPRM will propose changes to the slot allocation regulations that address the issue of the availability of slots for new entrants and limited incumbents. We believe that resolving these problems will improve the fairness of the slot allocation process.

SENATOR LAUTENBERG: Because slots themselves are often determined by both air and ground capacity, does the Department plan to, or has it thought of, intervening itself into the sale or taxing of landing slots? What part does the Department play in the transfer or sale of landing slots?

ANSWER: The number of slots available at the four slot controlled airports at a particular time is almost exclusively an air traffic control determination, hence essentially a function of airside capacity. The Department has no plans to tax or become more involved in the sale of slots. At the present time, the FAA approves the transfer of slots from one holder to another. That approval is based upon a verification that the transferrer is the current holder of the slot(s) in question and that the transferrer and transferee are both requesting transfer of the same slot(s). Information on any compensation for the transfer is not part of the approval process and is not submitted to the FAA.

AIRPORT CAPACITY PLAN

SENATOR LAUTENBERG: In the Airport and Airway Reauthorization legislation, the Department was directed to undertake a study of long-term airport capacity needs and develop an overall plan for solving the capacity problem. What is the status of that plan? The final report is due in January 1990. Will you be able to meet that deadline?

ANSWER: The study effort is continuing; however, there may be a slight delay in transmitting the final report to Congress in order to appropriately interface the airport capacity plan with the Secretary's National Transportation Policy.

MILITARY AIRFIELDS

SENATOR LAUTENBERG: What is the current status of the civilian use of military airfields? Are there military airfields presently being used for civil aviation use? If so, which ones?

ANSWER: There are 26 joint-use agreements in effect at domestic military airfields. Twelve of the agreements permit virtually unrestricted use by civil aircraft. The remainder set limits related to aircraft size, operating characteristics, types of operations, or number of flights.

In addition to the existing joint-use agreements, the Air Force is reviewing an application for joint use of Scott Air Force Base in Belleville, Illinois. Interim joint-use agreements are also expected with several military airfields that are being declared surplus.

Joint-use agreements are in effect at the following airfields:

Navy	Army	Air Force
*Agana NAS, GQ	*Allen AAF, AK	Barter Island DS, AK
*Bermuda NAS, BD	*Blackstone AAF, VA	*Charleston AFB, SC
Ford Island, HI	*Dillingham, HI	Dover AFB, DE
*Yuma MCAS, AZ	Forney AAF, MO	Eglin AFB, FL
	*Grayling AAF, MI	Myrtle Beach AFB, SC
	*Libby AAF, AZ	Palmdale Plant 42, CA
	Sherman AAF, KS	Point Lay DS, AK
	Wainwright AAF, AK	Rickenbacker ANGB, OH
	Polk AAF, LA	*Sheppard AFB, TX
	Gray AAF, WA	Travis AFB, CA
	*McCoy/Sparta AAF, WI	Westover AFB, MA

Richards-Gebaur AFB, MO and Ellington AFB, TX have been converted to civil ownership.

*Airfields with unrestricted use by civil aircraft.

MILITARY USE OF AIR SYSTEM PLAN

SENATOR LAUTENBERG: An estimated 15 percent of National Airspace (NAS) Plan costs are due to military use of the air system plan. Has the Department either studied or proposed that the Defense Department pay for its use of the system? If so, what were the results of either the study or the proposal? If not, why not?

ANSWER: While the public sector, principally the military, is estimated to account for almost 15 percent of the use of National Airport and Airway System, we do not support the transferring of Department of Defense (DOD) appropriated funds to the Federal Aviation Administration (FAA) to cover associated costs. For all intents and purposes, the technical performance standards and size of the FAA's air traffic control system are determined by the system's need to support air commerce, not by special defense requirements. The current financing arrangements have withstood the test of time well. We believe there is no special merit in changing that arrangement. Further, we are concerned that if FAA had to depend upon funding provided from DOD and DOD's budget were to be subjected to excessive reductions, FAA could wind up with less resources than required to operate this system.

Funds appropriated for DOD come from the general fund of the Treasury, the same source of non-Trust Fund resources used to finance FAA's costs. Thus, it is ultimately the taxpayers who pay for the operation of the NAS system. We would also note that the DOD uses the National System of Interstate and Defense Highways without a separate appropriation in the defense function of the budget. Such a transfer would entail unnecessary administrative workload, as well as the inherent difficulties that would arise with the authorizing and appropriations processes.

COMMERCIAL SPACE USER FEES

SENATOR LAUTENBERG: Briefly describe why the Department, in its January 1989 report, concluded that the imposition of user fees is inappropriate at this time in the area of commercial space transportation.

ANSWER: OCST has completed a study on imposing license fees to defray the costs of Mission and Safety Reviews. The study addressed the costs to the Government of administering the commercial launch licensing process and options for sharing these costs with the industry. The study considered the large amount of nonrecurring research costs associated with the uneven distribution of costs among various licensing actions, and the fact that this is an emerging industry whose overall structure is still unclear. The study concluded that:

- the imposition of license fees is possible but inappropriate at this time;
- fees should not be imposed until OCST has had more experience with the commercial launch industry;
- OCST's program should be allowed to mature to a state where application reviews are conducted on a routine basis and a clearer distinction can be made between program administration and program development; and
- the companies are presently bearing a significant share of the costs associated with the transition from total governmental-responsibility for launch activities to increased private sector responsibility for them.

MAJOR COMMERCIAL AIR PASSENGER CARRIERS

SENATOR LAUTENBURG: For the record, provide a list of the major commercial air passenger carriers in the United States, the number of passengers each one carried

in 1988, and the percent of total air traffic represented by those carriers' operations.

ANSWER: The information is provided in the following table.

LEADING PASSENGER CARRYING AIR CARRIERS
Calendar Year 1988

Carrier	Enplanements in Scheduled Service (000)1/	Percent of Total
American	64,296	13.3
Continental	37,636	7.8
Delta	59,969	12.4
Eastern	35,621	7.4
Northwest	35,784	7.4
Pan American	16,755	3.5
Piedmont	27,117	5.6
Trans World	25,124	5.2
United	56,326	11.7
USAir	32,466	6.7
Total Majors	391,094	81.0
Air Wisconsin	2,420	0.5
Alaska	4,772	1.0
Aloha	3,426	0.7
America West	12,651	2.6
American Trans Air	40	**
Braniff	4,322	0.9
Hawaiian	5,497	1.1
Midway	4,258	0.9
Pacific Southwest	2,365	0.5
Southwest	16,842	3.5
Total Nationals	56,593	11.7
Air America	303	0.1
Aspen	878	0.2
Florida Express	1,166	0.2
Horizon Air	1,397	0.3
Markair	357	0.1
Midwest Express	402	0.1
Presidential	844	0.2
Reeve	36	**
Sunworld	53	**
Tower	246	0.1
Westair	1,218	0.3
Total Large Regionals	6,900	1.4
Total Medium Regionals	27	**
Total Form 41 Carriers	454,614	94.1
Total Commuter Carriers	28,619	5.9
Total Industry	483,233	100.0

** Less than 0.1 percent.

1/ Data for Form 41 carriers from Air Carrier Traffic Statistics Monthly, Twelve Months Ended December 31, 1988. Total industry data from Air Carrier Industry Scheduled Service Traffic Statistics Quarterly, Twelve Months Ended December 1988.

MERGER CRITERIA

SENATOR LAUTENBERG: When the Office of Policy refused airline mergers, briefly describe and outline the critical factors that the Department used in its review process and which ones were the basis for the refusal.

ANSWER: During the period the Department administered Section 408 of the Federal Aviation Act (1985-1988), the Department refused approval of one airline acquisition, involving Texas Air Corporation's (TAC) acquisition of Eastern. In that case, the Department found Eastern and TAC's subsidiary New York Air together controlled 100 percent of the New York-Boston/Washington shuttle service. The Department also found that the shuttle markets were unique, high-frequency, airport-specific (New York LaGuardia-Boston Logan/Washington National) markets, which could not be disciplined by service from the other New York/Newark and Baltimore/Washington airports; and that the presence of slot controls at LaGuardia and National raised significant barriers to the entry of new competing shuttle service by other carriers. The Department, therefore, concluded that the acquisition would significantly reduce competition in the New York-Boston/Washington shuttle markets. (The Department subsequently approved TAC's acquisition of Eastern after TAC sold the slots and gates used in New York Air's shuttle operations to Pan American.) Effective January 1, 1989 the Department's airline merger review authority transferred to the Department of Justice.

LEVERAGED BUYOUTS

SENATOR LAUTENBERG: Have any major airlines in the United States been acquired through the process of leveraged buyouts? If so, please describe the process and the effect of the leveraged buyouts on the ability of that air carrier to provide service.

ANSWER: The closest thing to a leveraged buyout of a major airline was the privatization of TWA in 1988, although the effective control was in the same hands before and after the transaction, and the leveraging of the airline was done through a bond issue the previous year. In that deal, minority stockholders' shares were redeemed by TWA for $141 million in cash plus $212 million in TWA subordinated debentures, at 12 percent interest for 20 years. Majority stockholder and TWA Chairman Carl Icahn and his affiliated companies surrendered their existing shares in TWA in return for $665 million in a combination of cash, securities, and newly issued preferred stock plus 90 percent of TWA's new common stock. (The remaining 10 percent of new common stock was issued to TWA's employee stock ownership plan.)

The deal was financed by $800 million in long-term debt secured by TWA in 1987 and by the sale of TWA's holding of 20.6 million shares of Texaco to Mr. Icahn for $932 million in cash.

The transaction resulted in a decrease in TWA's current assets from $2.3 billion to $814 million, and in stockholders' equity from $308 million to a negative $7 million.

By Order 88-11-16, November 9, 1988, the Department found that TWA still met the continuing fitness requirement of section 401(r) of the Federal Aviation Act of 1958, and had sufficient resources to operate safely and reliably. Although book value of stockholders' equity had further declined to a negative $118 million by the end of March 1989, current assets had increased to $1.7 billion (including cash of $583 million). TWA has continued to operate normally since the privatization.

On June 19, 1989, NWA, Inc., the parent of Northwest Airlines, announced that it had entered into a merger agreement with Wings Holdings, Inc., for the acquisition of NWA, Inc. The agreement apparently involves a leveraged buyout of NWA, Inc., which will result in that entity incurring substantial new debt.

TEN MOST HEAVILY CONCENTRATED POINT-TO-POINT MARKETS IN THE UNITED STATES

SENATOR LAUTENBERG: For the record, provide the 10 most heavily concentrated point-to-point markets in the United States and the carriers that serve those markets.

ANSWER: The following table provides that information for calendar year 1988, based on ten-percent sample data inflated to 100 percent. The data show total number of passengers travelling between these points.

TOP TEN DOMESTIC PASSENGER MARKETS
Calendar Year 1988

Rank	Market	Carrier	On-Line O&D Passengers
1	Boston-New York/Newark	Pan American	1,185,560
		Eastern	1,107,060
		Continental	790,310
		Piedmont	136,250
		Trans World	109,910
		American	78,860
		Northwest	40,350
		Delta	7,850
		All Other	6,600
		Total	3,462,750
2	New York/Newark-Washington	Pan American	1,108,140
		Eastern	1,043,700
		Continental	583,240
		United	276,930
		Trans World	132,010
		American	17,980
		Presidential	8,360
		USAir	4,190
		All Other	9,870
		Total	3,184,420

Rank	Market	Carrier	On-Line O&D Passengers
3	Los Angeles-New York/Newark	United	726,840
		American	694,890
		Trans World	483,470
		Continental	404,400
		Pan American	371,230
		Eastern	93,210
		Delta	82,390
		Northwest	66,360
		USAir	33,570
		America West	33,350
		MGM Grand	29,740
		Braniff	14,980
		Piedmont	13,090
		All Other	7,220
		Total	3,054,740
4	Chicago-New York/Newark	United	1,272,500
		American	643,550
		Continental	402,390
		Midway	262,670
		Trans World	92,530
		Pan American	63,790
		Northwest	24,130
		Piedmont	16,990
		USAir	15,080
		Delta	4,050
		Braniff	2,970
		Eastern	1,580
		All Other	3,150
		Total	2,809,380
5	Miami-New York/Newark	Eastern	1,239,070
		Pan American	545,950
		Continental	238,040
		Trans World	169,930
		American	27,980
		Braniff	23,380
		Piedmont	19,410
		Delta	16,310
		United	9,780
		Northwest	5,150
		USAir	3,040
		All Other	10,320
		Total	2,308,360
6	Honolulu-Kahului	Hawaiian	1,363,480
		Aloha	881,700
		American	9,290
		All Other	11,390
		Total	2,265,860
7	Los Angeles-San Francisco	United	601,890
		USAir	549,220
		American	415,060
		Pac. Southwest	179,690
		Pan American	174,510
		Trans World	83,350
		Delta	72,860
		Northwest	37,560
		Eastern	34,720
		Continental	8,120
		All Other	8,310
		Total	2,165,290
8	Dallas/Ft. Worth-Houston	Southwest	1,267,880
		American	465,140
		Delta	174,410
		Continental	167,230
		All Other	3,010
		Total	2,077,670

Rank	Market	Carrier	On-Line O&D Passengers
9	New York/Newark-San Francisco	United	701,470
		American	340,060
		Trans World	310,730
		Continental	235,240
		Pan American	151,110
		Delta	52,760
		Northwest	50,550
		Eastern	33,190
		USAir	21,170
		Braniff	6,620
		Piedmont	3,770
		All Other	5,480
		Total	1,912,150
10	Fort Lauderdale-New York/Newark	Delta	883,830
		Eastern	499,710
		Continental	240,800
		Trans World	191,560
		Piedmont	28,280
		American	20,660
		Braniff	17,370
		United	12,450
		USAir	3,860
		Northwest	1,340
		All Other	2,950
		Total	1,902,810

Note: Ten-percent sample data inflated to 100 percent.

Source: Origin-Destination Survey of Airline Passenger Traffic, Twelve Months Ending December 31, 1988, DOT.

MARKET SHARES OF TEN LARGEST AIR CARRIERS

SENATOR LAUTENBERG: Give the market share of the 10 largest airline companies, for the year you have the most recent data for.

ANSWER: The following provides that information. The top ten companies accounted for 81 percent of scheduled service enplanements in 1988.

MARKET SHARES OF TEN LARGEST AIR CARRIERS*
Calendar Year 1988

Rank	Carrier	Enplanements in Scheduled Service (000)	Percent of Total
1	American	64,296	13.3
2	Delta	59,969	12.4
3	United	56,326	11.7
4	Continental	37,636	7.8
5	Northwest	35,784	7.4
6	Eastern	35,621	7.4
7	USAir	32,466	6.7
8	Piedmont	27,117	5.6
9	Trans World	25,124	5.2
10	Southwest	16,842	3.5

* Based on revenue passenger enplanements in scheduled service.

Source: Air Carrier Traffic Statistics Monthly, Twelve Months Ended December 31, 1988.

MERGERS AND ACQUISITIONS

SENATOR LAUTENBERG: Update the table relating to airline mergers and acquisitions appearing on pages 66, 67, and 68 of last year's Senate Hearing record 100-853, Part 2.

ANSWER: The Department has not reviewed any mergers or acquisitions involving large certificated carriers under section 408 of the Federal Aviation Act since the list was last updated. As of January 1, 1989, the authority to review mergers shifted to the Department of Justice. One major acquisition has taken place in FY 1989. Federal Express Corporation acquired Tiger International, Inc., the parent of Flying Tigers. This matter took place after the transfer of authority to review antitrust issues to the Department of Justice. That agency brought no judicial action to block the acquisition. The Department of Transportation did, however, approve the transfer of Flying Tiger's certificate authority to Federal Express by Order 89-5-10, served May 2, 1989, in Docket 46025.

SCHEDULE OF POSITIONS

SENATOR LAUTENBERG: Update the scheduled positions appearing on pages 72 and 73 of the Senate Hearing 100-853 part 2.
ANSWER: The information follows:

FY 1989

GRADE	NUMBER OF POSITIONS	MEAN COMPENSATION	TOTAL SALARIES
GS-01	1	$ 10,213	$ 10,213
GS-03	10	$ 16,895	$ 168,954
GS-04	17	$ 16,743	$ 284,632
GS-05	31	$ 18,990	$ 588,678
GS-06	43	$ 21,040	$ 904,738
GS-07	87	$ 23,403	$ 2,036,053
GS-08	40	$ 26,252	$ 1,050,080
GS-09	59	$ 27,861	$ 1,643,824
GS-10	15	$ 31,919	$ 478,790
GS-11	61	$ 32,636	$ 1,990,822
GS-12	73	$ 38,481	$ 2,809,131
GS/GM-13	104	$ 47,086	$ 4,896,995
GS/GM-14	175	$ 56,664	$ 9,916,271
GS/GM-15	144	$ 68,776	$ 9,903,713
GS-16	5	$ 79,296	$ 396,481
GS-17	2	$ 83,159	$ 166,318
GS-18	1	$ 86,682	$ 86,682
WAGE GRADES	39	$ 28,112	$ 1,096,364
EX-04	1	$ 80,700	$ 80,700
ES-01	4	$ 68,700	$ 274,800
ES-02	3	$ 71,800	$ 215,400
ES-03	3	$ 74,900	$ 224,700
ES-04	33	$ 76,400	$ 2,521,200
ES-05	7	$ 78,600	$ 550,200
ES-06	3	$ 80,700	$ 242,100
TOTAL	961 1/	$ 44,218	$ 42,537,839

1/ FY 1989 - Filled permanent positions as of May 30,1989.

FY 1988

GRADE	NUMBER OF POSITIONS	MEAN COMPENSATION	TOTAL SALARIES
GS-01	0	$ 0	0
GS-02	4	$ 13,616	$ 54,464
GS-03	9	$ 16,684	$ 150,158
GS-04	14	$ 16,060	$ 224,834
GS-05	35	$ 18,171	$ 635,978
GS-06	50	$ 20,389	$ 1,019,427
GS-07	76	$ 22,630	$ 1,719,846
GS-08	46	$ 25,231	$ 1,160,603

GS-09	59	$ 27,030	$ 1,594,746
GS-10	17	$ 30,618	$ 520,511
GS-11	60	$ 30,996	$ 1,859,772
GS-12	70	$ 36,908	$ 2,583,543
GS/GM-13	103	$ 44,808	$ 4,615,257
GS/GM-14	183	$ 53,638	$ 9,815,813
GS/GM-15	153	$ 65,100	$ 9,960,295
GS-16	7	$ 75,792	$ 530,541
GS-17	1	$ 81,353	$ 81,353
GS-18	1	$ 86,682	$ 86,682
WAGE GRADES	39	$ 27,495	$ 1,072,301
EX-01	1	$ 99,500	$ 99,500
EX-02	1	$ 89,500	$ 89,500
EX-04	4	$ 77,500	$ 310,000
EX-05	1	$ 72,500	$ 72,500
ES-01	8	$ 65,994	$ 527,952
ES-02	2	$ 68,952	$ 137,904
ES-03	7	$ 71,910	$ 503,370
ES-04	31	$ 73,400	$ 2,275,400
ES-05	9	$ 75,500	$ 679,500
ES-06	2	$ 77,500	$ 155,000
TOTAL	993 1/	$ 42,794	$ 42,536,750

1/FY 1988 - Filled permanent positions as of Sept 30, 1988.

CONSUMER COMPLAINT REPORTS

SENATOR LAUTENBERG: Please update the chart on page 119 of Senate Hearing 100-853, Part 2, regarding consumer complaint reports.

ANSWER: Consumer complaint reports for calendar year 1988 are attached.

JANUARY 1988 THROUGH DECEMBER 1988
AIR TRAVEL MONTHLY CONSUMER COMPLAINT REPORT

CONSUMER AFFAIRS DIVISION
U.S. DEPARTMENT OF TRANSPORTATION

SUMMARY OF COMPLAINTS

	JANUARY 1988 THROUGH DECEMBER 1988 TOTAL	JANUARY 1987 THROUGH DECEMBER 1987 TOTAL
U.S. AIRLINES	21493	40998
FOREIGN AIRLINES	1350	1839
CARGO COMPANIES	19	28
TRAVEL AGENTS	128	225
TOUR OPERATORS	129	192
MISCELLANEOUS COMPANIES	725	1575
INDUSTRY TOTAL	23844	44857

THIS REPORT IS BASED ON INFORMAL CONSUMER COMPLAINTS THE DEPARTMENT HAS RECEIVED BY MAIL OR TELEPHONE. DOT HAS NOT DETERMINED THE VALIDITY OF THE COMPLAINTS.

COMPLAINT CATEGORIES *

	JANUARY 1988 THROUGH DECEMBER 1988		JANUARY 1987 THROUGH DECEMBER 1987	
	RANKING	TOTAL COMPLAINTS	RANKING	TOTAL COMPLAINTS
FLIGHT PROBLEMS...	1	9230	1	18628
BAGGAGE.....	2	4487	2	8242
CUSTOMER SERVICE..	3	2256	3	4070
REFUNDS.....	4	2056	4	3759
TICKETING/BOARDING	5	1658	5	2732
OVERSALES.....	6	1570	6	2380
OTHER.....	7	1090	7	2092
SMOKING.....	8	593	9	1041
FARES.....	9	527	8	1062
TOURS.....	10	178	11	335
ADVERTISING.....	11	164	10	409
CREDIT.....	12	35	12	107
INDUSTRY TOTAL		23844		44857

* A DETAILED EXPLANATION OF THE COMPLAINT CATEGORIES IS ATTACHED

COMPLAINTS AGAINST U.S. AIRLINES

BY CATEGORY

U.S. AIRLINES ALPHABETICAL	FLIGHT PROBLEMS	OVER-SALES	RESERVATIONS TICKETING BOARDING	FARES	REFUNDS	BAGGAGE	CUSTOMER SERVICE	SMOKING	ADVER-TISING	CREDIT	TOURS	OTHER	TOTAL
AERO COACH	3	1	3	0	2	3	0	0	0	0	0	1	13
AIR AMERICA	24	5	2	0	5	28	3	0	0	0	0	1	68
AIR WISCONSIN	11	1	0	1	1	1	0	0	0	0	0	0	15
ALASKA AIRLINES	24	2	4	3	4	16	5	1	0	0	0	2	61
ALLEGHENY COMMUTER	7	1	1	0	0	0	0	0	0	0	0	1	10
ALOHA AIRLINES	12	8	2	0	0	7	2	0	0	0	0	1	32
AMERICA WEST AIRLINES	54	26	34	14	30	100	19	4	3	0	0	2	286
AMERICAN AIRLINES	473	60	117	45	79	242	148	70	7	1	6	80	1328
AMERICAN EAGLE	30	12	8	3	2	20	5	0	0	0	0	2	82
AMERICAN TRANS AIR	38	0	4	0	3	8	7	2	0	0	5	1	68
ATLANTIC SOUTHEAST AIRLINES	20	0	0	1	1	6	1	1	0	0	0	1	31
BRANIFF INC.	85	10	19	3	12	42	20	4	6	0	0	5	206
CARIBBEAN EXPRESS	7	0	1	0	5	4	1	0	0	0	0	0	18
CHALLENGE INTERNATIONAL AIRLINE	0	0	0	0	35	0	0	0	0	0	0	0	35
CONAIR	12	2	3	0	2	2	1	0	0	0	0	0	22
CONTINENTAL AIRLINES	1914	265	305	79	425	750	446	88	39	3	3	188	4505
CONTINENTAL EXPRESS	19	6	2	0	6	21	3	0	0	0	0	0	57
DELTA AIR LINES	247	41	73	47	86	141	77	38	7	2	1	70	830
DELTA CONNECTION	5	2	1	0	0	0	2	0	0	0	0	0	10
EASTERN AIR LINES	1714	192	181	60	303	631	299	50	16	10	4	139	3599
EASTERN EXPRESS	14	8	1	0	0	7	5	0	0	0	0	6	41
FIVE STAR AIRLINE	10	0	0	0	0	4	0	0	0	0	0	0	14
FLORIDA EXPRESS	15	2	2	0	2	8	1	0	0	0	0	1	31
GULF AIR, INC.	14	0	0	0	0	3	9	0	0	0	0	1	27
HAWAIIAN AIRLINES	208	32	16	2	5	114	44	8	0	0	2	10	441
HOLIDAY AIRLINES	5	5	1	0	4	4	2	0	0	0	0	0	21
HORIZON AIRLINES	5	3	0	1	0	5	0	0	0	0	0	1	15
KEY AIRLINES	4	0	0	0	0	1	2	1	0	0	2	2	12
MIDWAY AIRLINES	68	4	3	2	5	16	8	2	1	0	0	5	114
NORTHWEST AIRLINES	1244	115	107	21	113	266	223	38	6	1	0	100	2234

U.S. AIRLINES ALPHABETICAL	FLIGHT PROBLEMS	OVER-SALES	RESERVATIONS TICKETING BOARDING	FARES	REFUNDS	BAGGAGE	CUSTOMER SERVICE	SMOKING	ADVER-TISING	CREDIT	TOURS	OTHER	TOTAL
NORTHWEST AIRLINES	46	2	1	0	0	2	4	0	0	0	0	0	55
PACIFIC SOUTHWEST AIRLINES	15	7	6	1	6	13	4	5	0	0	0	4	61
PAN AM EXPRESS	12	10	2	2	0	16	5	0	0	0	0	0	47
PAN AMERICAN WORLD AIRWAYS	448	195	104	21	113	443	178	32	10	6	4	58	1612
PEOPLE EXPRESS AIRLINES	3	1	0	0	4	3	0	0	0	0	0	0	11
PIEDMONT AIRLINES	205	21	35	22	32	87	41	15	3	0	0	17	488
PRESIDENTIAL AIRWAYS	15	6	2	0	1	7	2	0	0	0	0	1	34
PRO AIR SERVICES	5	0	0	0	3	4	1	0	0	0	0	0	13
RESORT AIR	5	2	0	0	1	1	1	0	0	0	0	0	10
SIMMONS AIRLINES	10	2	0	0	0	1	0	0	0	0	0	2	15
SKY WEST AVIATION	6	5	2	0	1	7	2	0	0	0	0	0	23
SOUTHWEST AIRLINES	65	21	14	5	15	53	19	11	0	0	0	7	210
SUN COUNTRY AIRLINES	3	0	0	2	1	0	1	1	1	0	0	2	11
SUNWORLD EXPRESS	1	0	0	0	8	2	0	0	0	0	0	0	11
SUNWORLD INTERNATIONAL AIRWAYS	5	4	1	0	19	7	0	0	2	0	0	2	40
TOWER AIR	1	3	2	0	1	6	5	2	0	0	1	1	22
TRANS WORLD AIRLINES	724	89	157	57	126	372	237	63	32	8	8	92	1965
TRANS WORLD EXPRESS	7	1	2	0	0	5	1	0	0	0	0	0	16
UNITED AIRLINES	599	73	139	34	97	278	194	82	2	4	1	86	1589
UNITED EXPRESS	30	4	5	1	0	8	3	0	2	0	0	3	56
USAIR	270	66	67	25	49	129	80	28	3	0	0	25	742
OTHER U.S. AIRLINES	70	28	16	3	60	44	9	0	1	0	0	5	236
JANUARY 1988 THROUGH DECEMBER 1988	8831	1353	1445	455	1667	3938	2120	546	141	35	37	925	21493
PERCENT OF TOTAL COMPLAINTS	41.0	6.2	6.7	2.1	7.7	18.3	9.8	2.5	.6	.1	.1	4.3	100.0
JANUARY 1987 THROUGH DECEMBER 1987	18029	2129	2456	936	3310	7439	3890	891	342	101	90	1385	40998
PERCENT OF TOTAL COMPLAINTS	43.9	5.1	5.9	2.2	8.0	18.1	9.4	2.1	.8	.2	.2	3.3	100.0

AIRLINES ARE LISTED IF DOT RECEIVED 10 OR MORE COMPLAINTS AGAINST THEM DURING THE REPORTING PERIOD.

COMPANIES OTHER THAN U.S. AIRLINES

BY CATEGORY

	FLIGHT PROBLEMS	OVER-SALES	RESERVATIONS TICKETING BOARDING	FARES	REFUNDS	BAGGAGE	CUSTOMER SERVICE	SMOKING	ADVER-TISING	CREDIT	TOURS	OTHER	TOTAL
FOREIGN AIRLINES													
AER LINGUS	1	1	2	0	1	2	3	0	1	0	0	0	11
AEROMEXICO	8	2	3	1	28	9	2	0	1	0	0	2	56
AIR CANADA	13	2	2	1	1	10	1	0	1	0	0	0	31
AIR FRANCE	4	1	2	1	2	14	1	3	1	0	0	2	31
AIR INDIA	5	6	9	1	3	10	5	0	0	0	0	1	40
AIR JAMAICA	44	9	3	1	4	9	8	0	0	0	1	2	81
AIR NEW ZEALAND	5	0	0	0	1	4	0	1	0	0	0	1	12
ALITALIA AIRLINES	7	4	3	0	4	11	3	0	0	0	0	1	33
ALP	4	4	0	0	1	2	0	0	0	0	0	0	11
AVIANCA	3	6	2	0	2	5	0	0	0	0	0	1	19
BAHAMASAIR HOLDINGS	5	0	1	0	1	15	2	0	0	0	0	0	24
BRITISH AIRWAYS	15	7	5	1	7	11	8	4	1	0	0	5	64
BRITISH CALEDONIAN AIRWAYS	4	0	1	1	4	6	1	1	0	0	1	1	20
BWIA	9	11	0	1	2	13	1	1	0	0	0	1	39
CAYMAN AIRWAYS	4	0	0	0	2	2	1	0	0	0	1	0	10
CHINA AIRLINES	1	0	2	0	0	3	1	1	0	0	0	2	10
DOMINICANA DE AVIACION	4	2	0	0	0	6	0	0	0	0	0	0	12
ECUATORIANA	0	3	0	0	2	4	1	0	0	0	0	0	10
EL AL ISRAEL	2	2	3	1	1	4	1	1	0	0	0	1	16
GULF AIR	10	0	0	0	0	7	0	0	0	0	1	0	18
IBERIA AIRLINES	9	11	3	1	13	25	2	0	1	0	0	1	66
ICELANDAIR	5	0	0	0	1	5	2	0	1	0	0	0	14
JAPAN AIR LINES COMPANY	0	2	3	0	4	2	2	1	0	0	0	0	16
KLM	3	5	3	3	3	12	0	1	0	0	0	1	31
KOREAN AIR LINES	3	5	5	0	8	10	2	0	0	0	0	0	33
LACSA	2	7	0	1	3	5	2	0	0	0	0	0	20
LUFTHANSA	0	2	6	3	8	8	4	2	1	0	0	2	36
MEXICANA	43	36	11	0	11	78	11	1	0	0	1	5	197
OLYMPIC AIRWAYS	3	2	3	0	4	4	1	0	0	0	0	1	18
PAKISTAN INTERNATIONAL AIRLINES	2	9	2	0	4	4	3	0	0	0	0	0	24

	FLIGHT PROBLEMS	OVER-SALES	RESERVATIONS TICKETING BOARDING	FARES	REFUNDS	BAGGAGE	CUSTOMER SERVICE	SMOKING	ADVER-TISING	CREDIT	TOURS	OTHER	TOTAL
FOREIGN AIRLINES													
QANTAS AIRWAYS	3	5	1	0	0	3	3	3	0	0	0	1	19
SABENA	0	1	3	0	4	6	0	1	0	0	0	0	15
SINGAPORE AIRLINES	2	3	5	0	2	3	0	0	0	0	0	0	15
TACA INTERNATIONAL AIRLINES	1	1	3	0	3	5	9	0	0	0	0	0	22
VARIG AIRLINES	1	6	0	0	1	4	1	0	0	0	0	0	13
VIASA	4	0	0	0	3	8	0	0	0	0	0	0	15
YUGOSLAV AIRLINES	8	8	0	0	4	21	2	0	0	0	0	0	43
OTHER FOREIGN AIRLINES	21	19	24	3	28	83	12	4	0	0	4	7	205
TOTAL	258	182	110	20	172	433	95	25	8	0	9	38	1350
CARGO COMPANIES													
OTHER CARGO COMPANIES	0	0	0	1	1	5	0	0	0	0	0	12	19
TOTAL	0	0	0	1	1	5	0	0	0	0	0	12	19
TRAVEL AGENTS													
OTHER TRAVEL AGENTS	7	0	32	14	52	2	0	0	4	0	14	3	128
TOTAL	7	0	32	14	52	2	0	0	4	0	14	3	128

	FLIGHT PROBLEMS	OVER-SALES	RESERVATIONS TICKETING BOARDING	FARES	REFUNDS	BAGGAGE	CUSTOMER SERVICE	SMOKING	ADVER-TISING	CREDIT	TOURS	OTHER	TOTAL
TOUR OPERATORS													
FUNTASTIC TOURS	0	0	0	0	0	0	0	0	0	0	11	0	11
OTHER TOUR OPERATORS	13	6	7	1	30	6	6	0	2	0	45	2	118
TOTAL	13	6	7	1	30	6	6	0	2	0	56	2	129
MISCELLANEOUS COMPANIES													
OTHER MISCELLANEOUS COMPANIES	121	29	64	36	134	103	35	22	9	0	62	110	725
TOTAL	121	29	64	36	134	103	35	22	9	0	62	110	725

AIRLINES ARE LISTED IF DOT RECEIVED 10 OR MORE COMPLAINTS AGAINST THEM DURING THE REPORTING PERIOD.

MAJOR/NATIONAL U.S. AIRLINES *

RANKINGS

U.S. AIRLINES (MAJORS/NATIONALS)	JANUARY 1988 THROUGH DECEMBER 1988 RANK	TOTAL COMPLAINTS	COMPLAINTS PER 100,000 PASSENGERS **	JANUARY 1987 THROUGH DECEMBER 1987 TOTAL COMPLAINTS	COMPLAINTS PER 100,000 PASSENGERS **
CONTINENTAL AIRLINES	1	4505	11.78	9902	26.05
EASTERN AIR LINES	2	3599	9.72	5870	12.94
PAN AMERICAN WORLD AIRWAYS	3	1612	9.54	1943	13.15
TRANS WORLD AIRLINES	4	1965	7.82	3071	12.46
HAWAIIAN AIRLINES	5	441	7.74	433	8.61
NORTHWEST AIRLINES	6	2234	6.29	6946	18.36
BRANIFF INC.	7	206	4.47	169	4.93
UNITED AIRLINES	8	1589	2.86	3645	6.56
PIEDMONT AIRLINES	9	114	2.71	211	6.11
USAIR	10	742	2.36	728	3.79
AMERICA WEST AIRLINES	11	286	2.30	384	3.58
AMERICAN AIRLINES	12	1328	2.13	2189	4.04
PIEDMONT AIRLINES	13	488	1.80	754	3.01
DELTA AIR LINES	14	830	1.39	1241	2.41
SOUTHWEST AIRLINES	15	210	1.30	223	1.60
ALASKA AIRLINES	16	61	1.27	72	1.90
ALOHA AIRLINES	17	32	.95	14	.46
AIR WISCONSIN	18	15	.61	12	.57

* AIRLINES ARE GROUPED BASED ON ANNUAL OPERATING REVENUES. AIRLINES ARE CLASSIFIED AS "MAJORS" IF THEY EXCEED $1,000,000,000 IN OPERATING REVENUE. "NATIONALS" ARE AIRLINES WITH OPERATING REVENUES FROM $100,000,000 THROUGH $1,000,000,000. MAJOR AND NATIONAL AIRLINES WHICH ARE NO LONGER OPERATIONAL ARE NOT INCLUDED.

** THE NUMBER OF PASSENGERS FLOWN IS FROM RSPA FORM 41 REPORTS FILED BY THE AIRLINES, AND REFLECTS THE MOST RECENT ENPLANEMENT DATA AVAILABLE AT THE TIME OF THE COMPLAINT REPORT. THUS, THE NUMBER OF PASSENGERS IN THE COMPLAINT REPORT IS FROM A PERIOD TWO MONTHS EARLIER THAN THE PERIOD FOR THE COMPLAINTS THEMSELVES. FOR EXAMPLE, A JUNE COMPLAINT REPORT IS BASED ON JUNE COMPLAINTS AND APRIL ENPLANEMENT FIGURES.

COMPLAINT CATEGORIES

Flight Problems: Cancellations, delays, or any other deviations from schedule, whether planned or unplanned.

Oversales: All bumping problems, whether or not the airline complied with DOT oversale regulations.

Reservations, Ticketing and Boarding: Airline or travel agent mistakes in reservations and ticketing; problems in making reservations and obtaining tickets due to busy telephone lines or waiting in line, or delays in mailing tickets. Problems boarding the aircraft (except oversales).

Fares: Incorrect or incomplete information about fares, discount fare conditions and availability, overcharges, fare increases and level of fares in general.

Refunds: Problems in obtaining refunds for unused or lost tickets or fare adjustments.

Baggage: Claims for lost, damaged or delayed baggage, charges for excess baggage, carry-on problems, and difficulties with airline claim procedure.

Customer Service: Rude or unhelpful employees, inadequate meals or cabin service, treatment of delayed passengers.

Smoking: Inadequate segregation of smoker from non-smokers; failure of airline to enforce no-smoking rules; objections to the rule, would prefer change such as: (1) relaxation or elimination of regulations, or (2) banning of smoking on all flights.

Advertising: Advertising that is unfair, misleading or offensive to consumers.

Credit: Denial of credit, interest or late payment charges, incorrect billing, or incorrect credit reports on airline-issued credit.

Tours: Problems with scheduled or charter tour packages.

Other: Cargo problems, security, airport facilities, claims for bodily injury, and other problems not classified above.

OFFICE OF THE SECRETARY TRAVEL

SENATOR LAUTENBERG: What were the Office of the Secretary's total expenses for travel in fiscal years 1987, 1988, projected for 1989 and requested for 1990? For fiscal years 1988 and 1989 to date, please show the total amount of travel expenses for each of the top ten travelers in the Office of the Secretary.

ANSWER: The information follows.

OST TRAVEL
(in thousands of dollars)

Appropriation	FY 1987 Actual	FY 1988 Actual	FY 1989 Estimate	FY 1990 Request
Salaries & Expenses	$510	$435	$513 1/	$502
TPR&D	72	27	44	44
Working Capital Fund	171	207	393	315
Total - OST	$753	$669	$950	$861

1/ Revised estimate due to increased travel costs in FY 1989.

TOP TEN TRAVELERS
OFFICE OF THE SECRETARY

FY 1988

NAME	NO. TRIPS	AMOUNT
Charles Vandervoort	4	$ 14,355
W. Carrington Edmunds	17	14,338
Robert R. Collins	22	11,078
Susan A. Hedrick	11	11,052
Rosalind Ellingsworth	7	10,086
Carl S. Rapaport	13	9,534
Wendell Harbour	17	9,493
Matthew V. Scocozza	15	7,760
James H. Burnley	20	7,250
Wendy M. Democker	12	6,941
Total	138	$101,887

FY 1989 (THRU 5/31/89)

NAME	NO. TRIPS	AMOUNT
W. Carrington Edmunds	11	$ 9,240
Patrick J. Grubbe	8	8,910
Arnold Levine	7	8,790

Wendell Harbour	13	7,756
Douglass Sawin	23	7,096
Kenneth C. Edgell	12	6,836
John Oxley	16	6,451
Samuel K. Skinner	20	6,397[1]/
Susan McDermott	2	5,604
Norman C. Bowles	10	5,302
Total	122	$ 72,382

1/ Excludes costs associated with trips via Government planes.

SENATOR LAUTENBERG: For calendar years 1989 and 1988, update the chart contained on page 81 of Senate Hearing 100-853, Part 2, under the General Counsel's Office relating to the investigations, enforcement actions, and case dispositions of that particular office.

ANSWER: The following chart provides the required information:

	NO. OF INVESTIGATIONS		NO. OF ENFORCEMENT/COMPLIANCE ACTIONS		NO. OF CASES CLOSED	
SUBJECT	CY88	CY89[1]	CY88	CY89[1]	CY88	CY89[1]
ACCOUNTING	5	0	3	0	4	0
ADVERTISING	206	13	90	6	204	7
CHARTERS	45	10	27	4	32	5
COMPLIANCE DISPOSITION	91	42	NOT APPLICABLE		91	38
MISCELLANEOUS	20	2	11	0	18	1
REFUNDS	7	1	1	0	5	1
UNAUTHORIZED AIR TRANSPORTATION	16	2	8	1	15	1
TOTALS	390	70	140	11	369	53

[1] JANUARY THROUGH MAY, 1989

To the extent investigations disclose apparent violations, respondents are placed on notice and directed to take action to correct the problem. This action generally is taken by the Investigations Division through

informal correspondence, referred to as compliance action. In the event the respondent refuses to comply informally, the matter is referred to the General Counsel's Office for consideration of enforcement action. Should a case involve a serious problem, such as significant consumer harm or an instance of repeated offenses, the matter will be referred for enforcement action without first seeking informal compliance action. Thus, the above data reflect the total number of investigations initiated by the Investigations Division since January 1, 1988, the total number of cases for which compliance action has been taken and/or the total number of cases referred for enforcement action, and the total number of cases which have been closed.

ELECTRONIC TARIFF FILING PROJECT

SENATOR LAUTENBERG: What costs have been incurred for the airline tariff filing project in FY 1989? What costs are expected for this project in FY 1990? How far along is the Department, and when will it expect the airline tariff filing project to be completed?

ANSWER: The Conference Report (H. Rpt. 100-957) on the FY 1989 appropriations for the Department of Transportation directed us to expedite this program because of the benefits that could be realized from an automated tariff system. The conferees further directed us to allocate an additional $300,000 to this program for FY 1989. As a result, our costs for this program during FY 1989 are estimated at $575,000. Based on our accomplishments in FY 1989, which will permit us in early FY 1990 to bring the part of the system on-line that permits electronic filing of passenger fares, it is feasible that we could incur costs of $600,000 in FY 1990. These costs are associated with the further enhancement of the custom software that is currently being developed to handle electronic passenger fare filings. For example, it will allow us to supplement our archiving and retrieving software, and will allow us to expedite the program by designing a system to permit the industry to file the associated passenger rules electronically. We believe that with this funding we could improve our target completion date by one year.

Our program to convert from paper to electronic filing formally began in August 1985 with an Advance Notice of Proposed Rulemaking. Based on the comments we received in response to this notice, we decided to proceed toward development of a fully integrated on-line electronic tariff filing system.

We established an Advisory Committee to aid us in the process. The Committee has since made two recommendations to the Department. The first was to amend the tariff posting regulation to allow airlines to use electronic means to post tariffs at their world-wide sales locations. The second was to experiment with existing industry systems and software. The Department has adopted both of these recommendations, the first through a final rule issued at the end of 1988, and the second through experiments that are continuing.

In December 1987, the Airline Tariff Publishing Company petitioned the Department for a rulemaking that would permit electronic filing of passenger fare tariffs. The petition was premised on the need to provide some near-term interim relief from

the burdens associated with a paper filing system. In January 1989 we adopted a final rule that will provide this interim relief.

To implement the rule we have installed a local area network, and we are in the final stages of testing the quality and reliability of that network. Software has been developed to permit the airline industry to begin "test-filing" their passenger fares electronically as early as July 17, 1989. This test-filing period may extend up to 90 days, or until such time as we are satisfied that the system is functioning in a way that comports with our tariff obligations under all applicable statutes, regulations, and bilateral agreements. Formal implementation of this rule after the test period should enable the airline industry to submit approximately 70% of tariff filings electronically instead of on paper.

We estimate that our interim steps authorizing electronic filing will save the industry about $40 million annually. Meanwhile, we are continuing with our longer-term automation efforts for the development of a fully integrated on-line electronic tariff filing system.

We are on schedule with the overall program goals and objectives and, assuming adequate funding levels, expect to meet the target date for a fully operational system by the end of FY 1993.

SES BONUS AWARDS

SENATOR LAUTENBERG: Provide the name, grade and compensation of each recipient of an SES Bonus in FY 1987, 1988, and 1989. Also the total amount of funding requested for SES Bonuses in 1990.

ANSWER: The information follows.

SENIOR EXECUTIVE BONUS RECIPIENTS
FISCAL YEARS 1987-1989

OFFICE OF THE SECRETARY

Award Recipient	1987	1988	1989
Melissa Allen Deputy Assistant Secretary for Administration ES-5	7,300	14,680	13,150
Joseph Canny Director, Office of Transportation Regulatory Affairs ES-4	4,750	4,125	4,680
John Coleman Director, Office of Aviation Analysis ES-5	4,900	4,250	9,225
John Collins Assistant General Counsel for Legislation (Has left the Department) ES-4	13,740		

Award Recipient	1987	1988	1989
Warren Dean Assistant General Counsel for International Law (Has left the Department) ES-4		4,125	
Neil Eisner Assistant General Counsel for Regulations and Enforcement ES-4			8,975
William FitzGerald Deputy Assistant Secretary for Budget and Programs ES-5	13,350	13,600	13,150
Paul Gretch Director, Office of International Aviation ES-4	4,750	4,125	3,900
Thomas Herlihy Assistant General Counsel for Legislation ES-4			3,900
William Hudson Departmental Director of Civil Rights ES-5	7,000	9,825	6,275
Ronald Keefer Director, Office of Administrative Services and Property Management ES-4			3,900
Rosalind Knapp Deputy General Counsel ES-5	13,350	13,600	15,100
Marilyn S. Marton Director, Office of Installation and Logistics ES-4		5,900	3,825
George McDonald Chief, Transportation Assistance Division ES-3	9,750	8,425	8,425
Carolina Mederos Deputy Assistant Secretary for Safety ES-5	13,740	4,125	8,325

Award Recipient	1987	1988	1989
Patrick Murphy Deputy Assistant Secretary for Policy and Program Development ES-5	4,750	4,125	13,150
Edward Oppler Deputy Director for International Aviation Relations ES-4	4,750		
Angelo Picillo Deputy Director, Office of Administrative Services and Property Management ES-4	4,750		3,900
Samuel Podberesky Assistant General Counsel for Aviation Enforcement and Proceedings ES-4	4,750	14,680	8,975
Jon Seymour Assistant Secretary for Administration ES-6	11,500	13,975	13,500
Joyce Shelton Director, Office of Financial Management ES-4		3,950	3,900
Glenda Tate Director, Office of Management Planning ES-4			3,825
John Turner Director, Office of Information Resource Management (Has left OST) ES-5	6,350		
Donald Trilling Deputy Director, Office of Transportation Regulatory Affairs ES-4	6,850		3,900
Richard Walsh Director, Office of Economics ES-4	4,750		
Diana Zeidel Director of Personnel ES-4	6,350	3,950	

FUNDING FOR SENIOR EXECUTIVE BONUSES

FISCAL YEAR 1990

OFFICE OF THE SECRETARY

o $150,000 (estimate)

PMRS PERFORMANCE AWARDS

SENATOR LAUTENBERG: Provide the total amount of PMRS performance awards for all grades and the specific amounts for grades 15, 14, and 13 for fiscal years 1987, 1988, and projected for 1989 and 1990.

ANSWER: The information follows.

	1987	1988	PROJECTED 1989	PROJECTED 1990
GM-13	$ 41,905	$ 39,802	$ 41,792	$ 43,882
GM-14	140,040	137,381	144,250	151,463
GM-15	153,953	152,457	160,080	168,084
TOTAL	$335,898	$329,640	$346,122	$363,429

COMMERCIAL SPACE TRANSPORTATION

SENATOR LAUTENBERG: Update the table on pages 168 and 169 Senate Hearing 100-853 Part 2 regarding license applications and the commercial space transportation private launches.

ANSWER: The information follows:

U.S. COMMERCIAL LAUNCH MANIFEST
(As of June 1989)

COMPANY	PAYLOAD	CUSTOMER LAUNCH DATE
AMROC	SET-1 (Project Skidbladnir)	7/89
McDonnell Douglas	BSB-R1 (British)	8/89
Martin Marietta	JCSAT (Japanese)	9/89*
Martin Marietta	Skynet (British)	9/89*
Martin Marietta	INTELSAT VI (Intern'l Consortium)	10/89

AMROC	SET-2 (Microgravity Research)	10/89
Space Services, Inc.	Consort 2 (Microgravity Research)	11/89
McDonnell Douglas	LOSAT (U.S. Govt.)	12/89
Martin Marietta	INTELSAT VI (Intern'l Consortium)	2/90
McDonnell Douglas	INMARSAT-2 Flt#1 (Intern'l Consortium)	2/90
General Dynamics	EUTELSAT (European)	3/90
McDonnell Douglas	PALAPA-B2-R (Indonesian)	3/90
General Dynamics	CRRES (U.S. Govt.)	5/90
McDonnell Douglas	INMARSAT-2 Flt#2 (Intern'l Consortium)	6/90
Space Data Corp.	Joust 1 (Microgravity Research)	7/90
McDonnell Douglas	BSB-R2 (British)	8/90
General Dynamics	GOES I (U.S. Govt.)	11/90
McDonnell Douglas	NATO IVA (NATO)	12/90
Space Services, Inc.	Consort 3 (Microgravity Research)	/90
McDonnell Douglas	AURORA II (U.S. company)	4/91
General Dynamics	GOES J (U.S. Govt.)	11/91
Space Data Corp.	Joust 2 (Microgravity Research)	/91
General Dynamics	GOES K (U.S. Govt.)	5/92

Martin Marietta	Hughes HS601	/92
General Dynamics	INTELSAT VII (Intern'l Consortium)	3/93
General Dynamics	INTELSAT VII (Intern'l Consortium)	6/93
Martin Marietta	Hughes HS601	/93
General Dynamics	SAX (Italian)	/93

* The payloads will share the same vehicle.

UNIVERSITY RESEARCH

SENATOR LAUTENBERG: In response to a question during last year's hearings for the Office regarding the reduced funding request for university research, the Department answered on page 177 of the hearing record that, "the (university research) program has not had a major solicitation for new research since Fiscal Year 1985." Would you please explain why there has not been a major new solicitation since 1985, and whether the Department feels that this is correct.

ANSWER: Although we feel that the University Research Program has been very beneficial, budget constraints required that we fund only a few additional proposals over the years from the FY 1985 solicitation, rather than conduct new solicitations each year.

COMMERCIAL SPACE CONTRACTS

SENATOR LAUTENBERG: For the Office of Commercial Space, please list the contracts indicating the recipient, purpose, work product, completion date and cost for fiscal years 1988, 1989, and requested for fiscal year 1990?

ANSWER: The following table provides the requested information. Much of the contract work consists of technical support of on-going regulatory issues, inspections, and enforcement activities.

Contractor	Purpose/work product	Contractor Compl. Date (FY)	FY Cost
1988			
Research Triangle	Technical support for regulatory issues, risk analyses, licensing actions, payload/launch criteria, data collection	1992	$348,000
Transportation Systems Center	Analysis of on-orbit and reentry risks, Hazards Analysis Report, inspections and enforcement procedures	*	$250,000

Wilson and Moore	Design of database for industry forecasts and capabilities	1990	$50,000
Blazetech	Comparative analysis of accidents in transportation modes with potential launch accidents	1989	$40,000
Design Solutions	Assess requirements of document storage and retrieval system	1989	$40,000
Princeton	Insurance industry analysis	1988	$25,000
Peer	Consult on environmental issues	1990	$10,000
1989			
Research Triangle	Technical support for regulatory issues, risk analyses, licensing actions, payload/launch criteria	----	$450,000
Transportation Systems Center	Project integration, license support, standards development, enforcement procedures	*	$528,000
Peer	Environmental analysis	----	$49,000
SRS	License, inspection, enforcement tracking system, risk analysis model	1993	$465,000
Blazetech	Comparative analysis of accidents in transportation modes with potential launch accidents	1990	$10,000
ICF	Risk management	1992	$369,000
Design Solutions	Document storage and retrieval	1990	$24,000
Not yet awarded	Economic and policy	1993	$300,000
1990			
Research Triangle	Technical support for regulatory issues, risk analyses, licensing actions, payload/launch criteria	----	$500,000
Transportation Systems Center	Project integration, license support, standards development, enforcement procedures	*	$600,000

SRS	License, inspection, enforcement tracking system, risk analysis model	----	$535,000
ICF	Risk management	----	$600,000
Design Solutions	Computerized document storage	----	$75,000
Not yet determined	Economic and policy development	----	$400,000
Not yet determined	Environmental analysis	1994	$200,000
Not yet determined	Program support--industry and public liaison activities, including conferences.	1991	$50,000

* General Work Agreement with annual authorization.

AIRPLANE NOISE LEVELS

SENATOR LAUTENBERG: Secretary Skinner has stated he believes that there must be standardized requirements for acceptable airplane noise levels. Opponents of this position argue that it should be left up to local decisionmakers regarding noise levels in their neighborhoods. What is the current status of the Department's look at standardizing requirements regarding airplane noise levels?

ANSWER: The Federal Government, airport proprietors, and noise-affected communities play different roles with respect to the problem of airport/aircraft noise. The Federal Aviation Administration is responsible for regulating noise emitted by commercial aircraft, for establishing acceptable operational procedures for reducing noise from aircraft on takeoff or landing, and for overall management of the air traffic control system and navigable airspace in ways that minimize noise impact on residential areas.

Airport proprietors are primarily responsible for implementing actions designed to reduce the effect of noise on residents in the vicinity of their facilities. Such actions include optimal site location, improvements in airport design, noise abatement ground procedures, and land acquisition. Proprietors may also place some restrictions on airport use; however, these must not unjustly discriminate against any user, impede the federal interest in safety and management of the air navigation system, or unreasonably interfere with interstate or foreign commerce. State and local governments provide for land use planning and development, zoning, and housing regulations that will limit the uses of land near airports to purposes compatible with airport operations.

The Secretary has concluded, after examining the recent history of the aviation noise issue and talking with many interested parties, that it would be desirable to consider a more complete and comprehensive Federal policy for ensuring continued user access to the Nation's airports while protecting the environment. Accordingly, he has formed an internal task force to address airport access policy in the context of both noise-related

operational restrictions and programs intended to ease peak hour or overall congestion at airports. The task force is in the process of identifying policy options.

Recommendations of the task force will be provided to the Secretary no later than October 1989. The work on airport access policy will be incorporated, as appropriate, into the broader effort to develop a national transportation policy and strategic plan.

DEPARTMENT OF TRANSPORTATION RULEMAKINGS

SENATOR LAUTENBERG: What notices of proposed rulemakings or what proposed rulemakings currently exist, what subject matters do they cover, and when are the proposed dates for next following action for each? What rulemakings or notices of proposed rulemakings does the Department foresee being issued in the rest of fiscal year 1989, and are planned for fiscal year 1990?

ANSWER: All of the Department's rulemakings-in-progress are listed in our Semiannual Regulatory Agenda. The subject matter and dates for next action are listed under each entry. The rules are grouped by modal agency and by stage (notice of proposed rulemaking, final rule). Most of the rules, particularly the final rules, are scheduled to be issued during FY 1989 and 1990. (A copy of the Agenda has been provided to the Subcommittee and is available for inspection at the Subcommittee office.)

NEW LEGISLATIVE PROPOSALS

SENATOR LAUTENBERG: Provide for the record a brief summary of any new legislative proposals that will have an impact on the fiscal year 1990 budget request and also prepare for the record a summary of all fiscal year 1990 requests which require legislative authorization.

ANSWER: The bills requested by the President's Budget and submitted to Congress that will have an impact on the fiscal year 1990 budget are:

- Repeal of the aviation tax trigger (FAA), the statutory provision that would automatically reduce by 50 percent most aviation taxes supporting the Airport and Airway Trust Fund on January 1, 1990, because appropriations for FAA's capital and R&D programs for FYs 1988 and FY 1989 were less than 85% of amounts authorized.
- Establishment of Coast Guard user fees for direct and indirect services provided to recreational and commercial boaters.
- Authorization of railroad user fees to cover an increasing percentage of the costs of railroad safety inspectors.
- Transfer of responsibility for alteration of bridges that are obstructions to navigation, from Coast Guard to the Army Corps of Engineers.

- o Retention of Saint Lawrence Seaway Development Corporation toll revenues in lieu of deposit to Harbor Maintenance Trust Fund.
- o Sunset of the Interstate Commerce Commission, with transfer of residual responsibilities to the Departments of Transportation and Justice.

The fiscal year 1990 requests which require legislative authorization are: Coast Guard, National Highway Traffic Safety Administration (National Traffic and Motor Vehicle Safety Act of 1966; Motor Vehicle Information and Cost Savings Act; National Driver Register Act), and Research and Special Programs Administration (Hazardous Materials Transportation Act).

ADVISORY COMMITTEES

SENATOR LAUTENBERG: What are the expected costs of D.O.T. advisory committees in fiscal year 1990?

ANSWER: The information is reflected in the following table.

DEPARTMENT OF TRANSPORTATION
Advisory Committees
(in dollars)

Admin.	Committee Name	1988 Actual	1989 Estimate	1990 Estimate
FHWA	Commercial Motor Vehicle Safety Reg. Review Panal	12,538	15,000	15,000
	National Motor Carrier	40,045	40,000	40,000
	Subtotal	52,583	55,000	55,000
NHTSA	Motor Vehicle Safety Research Advisory Comm.	1,000	360	1,500
	National Driver Register	7,882	13,000	16,000
	Subtotal	8,882	13,360	17,500
CG	Chemical Transportation	7,552	2,450	2,450
	Coast Guard Academy	7,800	8,000	8,000
	Hou. Galveston Nav. Sfty.	3,493	3,150	3,500
	Lower Miss. Waterway Sfty.	300	1,800	2,500
	National Boating Safety	25,460	27,635	28,000
	National Offshore Safety	0	500	500
	NY Harbor Traffic Mgmt.	1,100	2,250	2,500
	Rules of the Road	300	20,000	30,000
	Towing Safety	5,600	5,750	5,750
	Comm. Fishing Industry	0	30,000	50,000
	Subtotal	51,605	101,535	133,200

FAA	Air Traffic Procedures	3,613	3,400	24,000
	Radio Tech. Comm./Aeronautic	91,947	72,000	100,000
	Natl Aviation Security	0	12,000	12,500
	Research, Eng. & Dev.	0	0	150,000
	Air Trans Pers & Trng Qual	0	0	1,200
	Subtotal	95,560	87,400	287,700
FRA	Northeast Corridor Comm.	0	500	0
SLSDC	St. Lawrence Seaway Adv. Bd.	5,810	11,770	12,200
RSPA	Technical Hazardous Liquid Pipeline Safety	6,309	10,000	10,000
	Tech. Pipeline Safety Stds.	8,390	10,000	10,000
	Subtotal	14,699	20,000	20,000
OST	Comm. Space Transportation	1,809	3,150	21,400
	Electronic Tariff	0	150	150
	Minority Business Res. Ctr.	3,762	5,135	7,550
	Handicapped Parking	0	2,000	2,000
	Reg. Negotiation-Handicap in Air Travel	1,170	0	0
	Subtotal	6,741	10,435	31,100
	GRAND TOTAL	235,880	300,000	556,700

ST. LAWRENCE SEAWAY DEVELOPMENT CORPORATION

STATEMENT OF JAMES L. EMERY, ADMINISTRATOR

The Corporation is proposing a program level of $12.7 million for FY 1990, which represents an increase of $788,000 over FY 1989 — $288,000 or a 3 percent increase for operations and maintenance and a $500,000 increase for capital plan improvements. To fund this program under current law, an $11.8 million appropriation is requested from the Harbor Maintenance Trust Fund, with the balance of the funding — $900,000 — to come from interest on retained earnings and other sources.

The Capital Plan includes a major extraordinary modernization project -- the repowering of the Corporation's tug which was built in 1958. The FY 1990 budget proposal includes $2 million to repower the aging, 30 year old tug with a modern power system that will increase the vessel's capability and extend its useful life for another 30 years. Repowering was selected as the most cost-effective option, after a careful and thorough analysis of alternatives.

Mr. Chairman, in previous years, the issue of lock stability was discussed with the subcommittee. The FY 1990 Budget includes $250,000 to monitor lock wall movements and groundwater pressure in the backfill as part of our continuing efforts to evaluate lock stability. This is consistent with the recommendation by the Corps of Engineers that lock wall stability requires monitoring and evaluation, not rehabilitation.

In addition to lock stability, another issue of concern is the internal structural integrity of the locks, specifically the continuous seepage of water through culvert cracks, despite work designed and supervised by the Corps in 1968-69 to remedy the problem. In September of 1988, the Corporation requested the Corps to reevaluate the work they did in 1967-69 to determine whether it remains structurally sound and safe. In January of 1989, the Corporation entered into an interagency agreement with the Corps to perform a preliminary investigation of internal structural problems during the 1989 winter shutdown period at a cost not to exceed $25,000. The results of this investigation are due from the Corps in June of 1989 and will help us assess the need for internal structural evaluation.

Total tonnage of 40.5 million tons moved through the Seaway in 1988, a gain of 589,000 tons from 1987. This represented the best shipping season since 1984, despite the 3.2 million ton drop in Canadian grain shipments due to summer drought. The Canadian grain decline was offset by a 4.1 million ton increase in coal, coke, steel, iron ore and selected bulk cargoes. Had it not been for the 25 percent decline in Canadian grain, Seaway tonnage would have been 10 percent higher than 1987.

Another positive development in 1988 was a significant increase in U.S. steel exported through the Seaway. The 189,000 tons of American export steel in 1988 represented an increase of 168,000 tons over 1987. To capitalize on the factors contributing to the surge in the export of U.S. manufactured steel, the Corporation

will bring together industry representatives, carriers and port officials at steel export seminars scheduled for early April in Cleveland and Chicago. It should be noted that 70 percent of U.S. steel production occurs in plants in the Great Lakes Region.

To encourage use of the Seaway, the Corporation continues to engage in activities targeted to increase domestic and international awarenesss of the Seaway. For example, the annual Seaway Trade Missions have become an effective vehicle to increase international awareness of the system and attract additional cargo. Trade mission effectiveness is demonstrated by the export of 438,000 tons of U.S. export coal to Denmark in 1988. The movement of this cargo was secured by a carrier mission participant to Denmark in 1987. There were no coal shipments to Denmark in 1987. Another major overseas carrier had 12 sailings of U.S. export grain to Algeria in 1988, following a mission visit to this country in 1988.

Recently concluded toll negotiations with the Canadian Seaway Authority may provide the impetus for increased activity for Great Lakes Ports. The Corporation was able to secure the elimination of all tolls on Government-Aid Food Cargo. This is the first time the Seaway has completely eliminated tolls on a class of cargo. The Government-Aid Cargo is labor intensive and therefore of substantial economic benefit to the ports. Moreover, Government-Aid Cargo is a magnet cargo that draws ships into the system that transport additional cargoes. The elimination of the toll, effective in 1989, should help Great Lakes ports compete for Government-Aid Cargo. The Corporation and Seaway Authority also agreed to reduce the toll on lumber by 53 percent per ton beginning in 1989. Although only 9,400 tons of lumber were shipped through the Seaway in 1987, the substantial toll reduction should be an incentive to attract increase shipment of lumber through the system.

U.S. Seaway tolls collected for rebate to users in FY 1988 totaled $10.1 million.

Finally, it should be noted that legislation will be proposed to provide for a return to direct toll financing of the Corporation's budget.

QUESTIONS SUBMITTED BY SENATOR LAUTENBERG

CORPORATION FINANCING STATUS

SENATOR LAUTENBERG: The Corporation continues to propose a return to its previous position, which was a toll retention status, rather than relying on an appropriated account funded from the Harbor Maintenance Trust Fund.

Legislation has been proposed to return the Corporation to direct revenue financing in fiscal 1990. How has the appropriation basis worked in prior years?

ANSWER: The Corporation has had no difficulty with fiscal management within the bounds imposed by appropriations. Nevertheless, the problems created by being on an appropriation basis, which the Corporation has described to you in previous years and iterates this year, remain undiminished.

SENATOR LAUTENBERG: Can the Corporation point to specific problems with being a directly appropriated activity?

ANSWER: The problems with being a directly appropriated corporation are as follows:

1. The Corporation loses "leverage" in negotiating with the Canadians in setting toll levels. The Seaway is a bi-national operation which has been a model of international cooperation. The Corporation's current appropriated status raises questions as to the validity of the United States' 1959 toll agreement with Canada. It could jeopardize our bilateral working relationship and have serious implications on shippers.
2. The Corporation loses the ability to deposit retained earnings in a reserve fund, which finances emergency repairs and capital improvements.
3. The Corporation loses a built-in incentive to promote trade and traffic in order to generate additional toll receipts.
4. The Corporation cannot depend on a dedicated and secure cash flow. If the Corporation continues on an appropriated basis, it will be subject to across-the-board reductions required in the deficit reduction process. These could result in some deferral of capital improvements and maintenance.
5. Toll financing would provide additional incentive to operate efficiently and thus lessen the possibility that we would require additional operating funds from Congress.
6. Toll financing would also provide an additional important incentive to increase cargo traffic.

SENATOR LAUTENBERG: What is the status of the proposed legislation?

ANSWER: The proposed legislation was transmitted to Congress on March 17, 1989. It has not yet been introduced.

SENATOR LAUTENBERG: Will the Corporation be in position to carry out necessary rehabilitation and maintenance work on the locks if it returns to toll financing? Please elaborate on the 5 year capital plan recently completed. Will the budget request support implementation of the plan? Would implementation of the plan be different if the Corporation were returned to a toll retention status? Please elaborate.

ANSWER: Yes.

The five year capital plan, updated annually, is intended to be a "living document" to assist management in the allocation of resources and provide guidelines for the scheduling of projects. The 1990 budget request supports the updated plan.

The capital plan reflects those projects necessary to keep the Corporation's plant and equipment in top operating order to insure safe and efficient transit of vessels. The implementation of the plan would not be different if the Corporation were returned to toll retention status.

SENATOR LAUTENBERG: In view of the fact that Congress did not act last year on the Department's efforts to achieve a return to toll financing, why have you again made this request in the budget proposal?

ANSWER: The Administration has made this request once again because it believes toll financing is the most efficient and effective way to manage the Corporation.

SENATOR LAUTENBERG: Has the direct appropriation basis impaired the Corporation's primary responsibility of safe and timely passage of vessels through the Eisenhower and Snell U.S. locks and the St. Lawrence Seaway System? Please elaborate.

ANSWER: No.

SENATOR LAUTENBERG: Why is total revenue estimated to fall from $11.955 million in 1988 and $12.1 million in 1989 to $10.8 million in 1990? Will that trend continue?

ANSWER: The reason for the "apparent" downward trend is that the figures you cite for FY 1988 and FY 1989 are appropriated amounts from the Harbor Maintenance Trust Fund, plus non-toll revenues. In contrast, the FY 90 figure you cite represents estimated toll revenues based on traffic forecasted by the Corporation, plus non-toll revenue, at the time of the FY 90 budget submission.

SENATOR LAUTENBERG: Also, what is behind the general trend in increased expenses from 1988 to 1990? Will that trend continue?

ANSWER: The increases are due to mandated increases in pay, civilian personnel benefits (health insurance and FERS) and inflation on supplies, materials and other operating costs. It is expected these trends will continue. In addition, capital outlay funds in 1990 reflect a large ($2,000,000) one time expenditure to repower and increase the capability of the Corporation's tug.

LOCK REHABILITATION

SENATOR LAUTENBERG: What is the status of the disagreement between the Corps of Engineers and an engineering firm hired by the Corporation, pertaining to the need to strengthen the Seaway locks?

ANSWER: The Corps of Engineers has stated unequivocally the Seaway locks meet their revised factor of safety standards and are not in need of remediation with regard to external stability.

With regard to internal structural integrity of the locks the Corps of Engineers, at the request of the Corporation, recently completed a preliminary study on the status of anchors which were installed between 1967 and 1969. The Corps indicates the findings of this preliminary study will be provided to the Corporation in June 1989.

SENATOR LAUTENBERG: What is the current outlook on the Corporation needing funds for lock rehabilitation?

ANSWER: In September 1988, the Corporation's consultant completed the plans and specifications for the proposed lock stabilization at both Eisenhower and Snell Locks for an estimated cost of $18.0 million. However, based on the Corps recommendations, the $18.0 million budget request was removed from the Presidental Budget.

In January 1989, the Corporation entered into an Interagency Agreement with the Corps; (1) to perform an anchor investigation at Eisenhower Lock during the 1989 winter shut-down period and (2) to prepare a report by June 1989 recommending any further structural evaluation needed to determine the remedial measures required to ensure the structural integrity of the lock walls.

During FY 1990 the Corporation will install instruments to periodically monitor lock wall movements and groundwater pressures in the backfill at both locks at an estimated cost of $250,000.

SENATOR LAUTENBERG: What rehabilitation work was performed during the 1988-1989 winter shut-down? How much did this work cost?

ANSWER: Lock rehabilitation work during the winter of 1988-89 was concentrated at Eisenhower Lock, which was dewatered, covered and heated during the entire winter. The major accomplishments were (1) jacking of two downstream miter gate leaves for inspection of pintle and pintle casting/bushing assembly, (2) pre-stressing diagonals of both upstream and downstream gates, (3) installing two new water level gauges, (4) modifying fender booms, (5) repair of deteriorated/damaged concrete near the valves, (6) painting of valves and repair of trunnion shaft at south upstream valve and (7) conducting a post-tensioned anchor investigation with the Army Corps of Engineers. The cost of this work totalled $358,804.

EXPENSES

SENATOR LAUTENBERG: Why are the civilian personnel benefits trending upward (page 7)?

ANSWER: This is due primarily to increases in health benefits program costs as well as additional costs for the FERS retirement system.

SENATOR LAUTENBERG: What was the 1989 budget estimate for travel and transportation? Has it increased since the appropriation bill was enacted?

ANSWER: The 1989 estimate is $271,000. No.

SENATOR LAUTENBERG: Detail how the travel and transportation budget of $283,000 is to be spent.

ANSWER:

Administrative	$116,000
Marketing & Trade Mission	72,000
Operations & Maintenance of Navigation Aids	49,000
Training	25,000
Relocation	15,000
Engineering	6,000
	$283,000

SENATOR LAUTENBERG: Why are the rental payments to GSA increasing by $30,000 between fiscal year 1989 and fiscal year 1990?

ANSWER: The estimates in FY 1989 and FY 1990 are based on estimates provided by the Office of the Secretary of Transportation.

SENATOR LAUTENBERG: List the equipment purchases requested for fiscal year 1990.

ANSWER: Fiscal Year 1990 Planned Equipment Purchases:

Office equipment	$ 15,000
Computer equipment	50,000
Replace lighted buoys	60,000
Lock performance recording system	15,000
Replace trucks	70,000
Upgrade hydrographic surveying equipment	50,000
Repower tug ROBINSON BAY	2,000,000
Total	$2,260,000

SENATOR LAUTENBERG: List the lands and structure expenses requested for fiscal year 1990.

ANSWER: Fiscal Year 1990 Lands and Structure Expenses:

Replace hatch covers	$ 25,000
Safety improvements	10,000
Upgrade lock control electrical equipment	50,000
Install sector light at Point Vivian	15,000
Construct fixed light No. 54	175,000
Install RACON at Seaway International Bridge	60,000
Upgrade marine base office and shop facilities	90,000
Install new tile gauges at both locks	15,000
Total	$440,000

PERSONNEL

SENATOR LAUTENBERG: How many personnel have converted from schedule "C" positions to Senior Executive Service Status, or to career status, in fiscal years 1986, 1987, 1988, and 1989?

ANSWER: One conversion (Fiscal Year 1989) from Non-Career SES to Career SES.

SENATOR LAUTENBERG: List the individuals, date of conversion and length of government service prior to entering the SES.

ANSWER: Erman J. Cocci; converted 12-04-88 (through competitive announcement procedures); length of service before conversion: 4 years, 10 months.

SENATOR LAUTENBERG: How many SES positions are open at the Corporation? Have they been advertised? When will they be filled?
ANSWER: None

SENATOR LAUTENBERG: How many SES and "C" schedule positions are authorized for the Corporation?
ANSWER: The Corporation is authorized 2 SES positions. (Note: only one authorized SES position is currently filled.)
Three Schedule "C" positions are currently authorized.

SENATOR LAUTENBERG: List the positions with salary levels of all the positions occupied by "C" schedule or SES personnel.
ANSWER: Associate Administrator/Resident Manager, ES-05
Special Assistant to the Administrator, GM-15 ("C")
Special Assistant for Marketing, GM-14 ("C")
Special Assistant for Intergovernmental Relations, GM-14 ("C")

SENATOR LAUTENBERG: The number of full-time permanent positions is proposed to decrease from 184 to 179. Why? What positions are to be unfilled?
ANSWER: Through management efficiencies the Corporation will not fill existing authorized vacant positions in procurement and maintenance.

FINANCIAL MANAGEMENT SERVICE (Department of Treasury)
(Responses to questions on toll rebates were provided by the Department of Treasury)

SENATOR LAUTENBERG: List the breakdown by grade with brief job descriptions of the ten personnel requested for the toll rebate program.
ANSWER: The personnel assigned to the St. Lawrence Seaway Toll Rebate Program and the Harbor Maintenance Trust Fund are: one GS-3, one GS-4, two GS-11's, and one GS-12. FMS has determined that only five FTE's are necessary to administer this program and has revised the FY 1990 budget request accordingly. The personnel are responsible for the following duties:

- Promptly authorizing and making toll rebate payments;
- Maintaining the over $100 million Harbor Maintenance Trust Fund, including developing and maintaining general ledger accounts, recording receipt and disbursement information, and interacting with the Saint Lawrence Seaway Development Corporation to resolve data discrepancies;
- Managing the investment activity for both transferred receipts awaiting disbursement and the Harbor Maintenance Trust Fund;
- Developing all reports required by law and regulation, and in response to ad hoc requests; providing estimates of program activity for budget and finance estimates;
- Maintaining liaison with the Internal Revenue Service, the Customs Service, the Saint Lawrence Seaway Development

Corporation, the Corps of Engineers, and Treasury's Office of Tax Analysis to resolve policy or management issues; and

- o Justifying and monitoring the appropriation using execution and formulation budget methods.

SENATOR LAUTENBERG: What are the 1990 administrative expenses requested for this activity? Break out the items that make up this request compared to the 1989 level.

ANSWER: Administrative expenses requested for this activity in 1990 total $284,000, which is $16,000 less than the $300,000 requested in 1989.

The items that make up this list are:

	1989	1990
Personnel compensation and benefits	$160,000	$160,000
Other object classes	140,000	124,000
	$300,000	$284,000

SENATOR LAUTENBERG: How much in tolls was collected in fiscal year 1989 and how much was rebated? What is the statutory policy and programmatic justification for the rebate program?

ANSWER: As of April 30, 1989, $4,565,519 has been collected and deposited in the Harbor Maintenance Trust Fund and $6,744,696 has been certified and rebated.

The Harbor Maintenance Revenue Act of 1986 (P.L. 99-662, November 17, 1986) amended the Internal Revenue code to establish a harbor maintenance tax to be collected by the U.S. Customs Service on cargo imported to or exported from the United States, and established the Harbor Maintenance Trust Fund for deposit of these tax revenues. Section 805 of the Act requires that tolls collected by the Saint Lawrence Seaway Development Corporation be transferred to the Harbor Maintenance Trust Fund, but that such tolls be rebated to those who were assessed.

SENATOR LAUTENBERG: How does the toll rebate request for fiscal year 1990 differ from fiscal year 1989? How was this figure derived, and what factors (if any) suggest a higher rebate level?

ANSWER: The toll rebate amount for FY 1990 of $9,800,000 is based on estimates of activity developed by the Saint Lawrence Seaway Development Corporation. The FY 1989 amount was $10,400,000.

SENATOR LAUTENBERG: What is the expected full-time equivalent for fiscal year 1990?

ANSWER: The expected FTE number for 1990 is 5.

SENATOR LAUTENBERG: How many are now employed in the program?

ANSWER: FMS has 5 FTE's administering the rebate of tolls.

TRADE MISSION

SENATOR LAUTENBERG: How many trade missions are budgeted in 1990?

ANSWER: One.

SENATOR LAUTENBERG: How much did the Corporation pay for the trade mission in fiscal years 1987, 1988, and 1989?

For each year, break down how the costs were incurred (page 697). In what line item(s) are trade mission costs located?

ANSWER:

Trade Mission Costs

	1989 Preliminary	1988 Actual	1987 Actual
Reimbursement to U.S. Dept. of Commerce	$52,190	$86,438	$62,681
Brochures	7,166	15,448	15,797
Shipping/Mail Costs	8,793	7,938	9,980
Travel and other mission costs	17,738	46,694	32,953
Airfares	26,565	43,833	23,973
Miscellaneous	16,562	19,202	18,070
Cost Reimbursements from participants	(39,540)	(62,571)	(57,000)
SUBTOTAL	89,474	156,982	106,454
SLSA Expenses	83,678	0	52,115
TOTAL	173,152	156,982	158,569
SLSDC Share	$ 86,576	$156,982	$79,284

The line items in which trade mission costs are located include, travel and transportation of persons, other services, supplies and materials.

SENATOR LAUTENBERG: Will the St. Lawrence Seaway Authority of Canada participate in the 1989 trade mission?

ANSWER: The Seaway Authority of Canada participated in the 1989 trade mission conducted from March 3, 1989 through March 18, 1989.

SENATOR LAUTENBERG: What cities were visited on the 1989 Trade Mission?

ANSWER: London, United Kingdom
Antwerp, Belgium
Madrid, Spain
Tunis, Tunisia
Casablanca, Morocco

SENATOR LAUTENBERG: How were these cities chosen?

ANSWER: The 1989 trade mission sites were selected on the basis of existing Seaway traffic flows, potential for expanded movement through the Seaway and whether they are major international commercial centers for shipping.

For example, ENGLAND, SPAIN AND BELGIUM represent established Seaway markets, with the latter ranked No. 1 for total Seaway cargo. MOROCCO and TUNISIA are examples of developing markets, particularly for U.S. grain exports, with both nations ranking in the top fifteen overseas markets for U.S. grain through the Seaway.

SENATOR LAUTENBERG: No hard data regarding trade mission success has been provided in prior years. What can be provided this year?

ANSWER: Individual trade mission participants consider mission achievement proprietary since they are in competition with each other. However, we have been able to identify the following results of the mission programs:

COAL: 1988 U.S. coal exports through the Seaway were 662,000 tons, a +183% increase over 1987, and the highest volume since 1982.

438,000 tons of the total (66%) was to DENMARK, a 1987 mission site. The movement was secured by a carrier mission participant.

Earlier contracts secured while on trade missions are: 1985-221,505 tons of coal to BELGIUM, 145,580 tons of coal to DENMARK; 1986-219,850 tons of coal to BELGIUM.

COKE: U.S. direct overseas exports reached 365,496 tons in 1988, the highest level since 1982.

Mission sites represented approximately 54% of overseas volume prior to 1985.

Mission site share of the overseas market has grown consistently each year to an average 95%, 85/87. For 1988, mission sites accounted for 100% of the U.S. direct overseas exports, representing an increase of 225,700 tons, or a 161% increase over 1987.

CHEMICALS: The world's largest liquid bulk transporter and regular Seaway user has established its port of Chicago terminal and facilities as the focal point for global distribution of liquid bulk products.

The major chemicals trade through the Seaway is a two way movement among U.S. and Canadian lake ports and ROTTERDAM, NETHERLANDS, a major mission site in 1985 and 1988.

Prior to the mission programs, the total trade averaged about 224,000 tons annually. It is currently averaging 309,000 tons, a 38%, or 85,000 ton increase.

ALGERIA: The major overseas carrier through the Seaway had 12 sailings to ALGERIA of U.S. grain exports in 1988, following the mission visit. There was no comparable past level of activity.

The port of Duluth has finalized a sister port working agreement with the port of ALGIERS, provisions of which include marketing assistance throughout other NORTH AFRICAN states.

1988 U.S. grain exports through the Seaway, direct and transshipped were 1.1 million tons, an increase of 22% or 64,000 tons over the past three year average of 936,000 tons.

Shipments of corn and barley (primarily a wheat market) to ALGERIA in 1988, increased 175,000 tons or 36% over the 1987 season.

REVERSE MISSIONS: In September 1988, the SLSDC hosted a large delegation of ITALIAN trade and transport officials, here to review Seaway lock and port facilities.

An ALGERIAN mission is planned for June 1989.

Marketing staff participation in delegations to the U.S. from trade mission countries:

Port of Antwerp
Port of Rotterdam
Port of LeHavre
Yugoslav National Steamship Line Officials

VESSEL SERVICES: With the opening of the 1989 season, two carrier operations have been formalized with new regular services between the Great Lakes and Europe

The firms are Louis Dreyfus Liner Service and U/M Lakes Service. Principles of both firms have participated in the trade mission programs.

During the 1989 mission, one of the major overseas carriers through the Seaway secured a commitment by MOROCCAN importers to be included in future grain charter bids from the U.S. lakes ports.

SENATOR LAUTENBERG: List the names of Seaway personnel that made the trade mission trips in 1988 and 1989, and the amount of travel and other costs associated with each.

ANSWER:

1989		1988	
J. L. Emery	$5,343	J. L. Emery	$5,799
A. K. Blackman	5,600	A. K. Blackman	5,711
S. J. Beaudry	5,511	D. E. Deuschl	3,575

SENATOR LAUTENBERG: List the names and organizations of the 1989 trade mission participants not directly employed by the Corporation and indicate what expenses will be associated with the trip.

ANSWER: Participant expenses were for travel, lodging, and program costs. U.S. Mission participants paid the Corporation $3,500 for partial participation and $4,500 for the complete trip. In total, the Corporation was paid $39,540. Canadian participants paid the Seaway Authority.

The 1989 Trade Mission participant list is as follows:

BURNS INTERNATIONAL HARBOR
James H. Hartung
CANADIAN STEAMSHIP LINES, INC.
P. Simon Cox
CERES TERMINALS, INC.
Kaare Eileraas
CLEVELAND-CUYAHOGA COUNTY PORT AUTHORITY
RADM Anthony Fugaro
DETROIT/WAYNE COUNTY PORT AUTHORITY
Art Blackwell
ERIE-WESTERN PENNSYLVANIA PORT AUTHORITY
Brian J. Hickey
FEDCOM
William E. Gard
INTERNATIONAL LONGSHOREMEN'S ASSOCIATION
John D. Baker
LAKES AND RIVERS TRANSFER
Edward W. Rentz
LOUIS DREYFUS CORPORATION
Raf D. Hirtz
OSHAWA HARBOUR COMMISSION
Donna Taylor
PRAIRIE MARITIME CORPORATION
Warren A. Jackman
QUAST AND COMPANY, INC.
Karl H. Quast
SHARRON INTERSTATE GRAIN
Herb Walberg
SOCIETE DU PORT DE QUEBEC
Marc Dulude
Ross Gaudreault

SOCIETE DU PORT DE VALLEYFIELD
Richard Morin
THE TORONTO HARBOUR COMMISSIONERS
Ken L. Closs
THUNDER BAY HARBOUR COMMISSION
Cy A. Cook
ULS CORPORATION
Paul Corcoran
WINDSOR HARBOUR COMMISSION
David S.H. Cree

RETAINED EARNINGS

SENATOR LAUTENBERG: What was the balance remaining in retained earnings on December 31, 1988?

ANSWER: $10.8 million.

SENATOR LAUTENBERG: Was this amount affected by the Water Resources Development Act? If so, how?

ANSWER: Yes. During the period April 1, 1987 through September 30, 1987, the Corporation was forced to use $2 million of its retained earnings, which it considers to be its financial reserve, for normal operations and maintenance. The Corporation, which lost access to tolls effective April 1, 1987, requested a 1987 supplemental appropriation of $6 million, but the Congress reduced the request by $2 million, requiring the use of retained earnings to meet normal operating expenses.

SENATOR LAUTENBERG: Are there restrictions on the use of these funds?

ANSWER: The House Appropriations Subcommittee on Transportation and Related Agencies Report No. 100-691 accompanying H.R. 4794 (FY 1989 report dated 6/10/88) language provides the Corporation the flexibility and access to available resources, historically set aside for nonroutine or emergency use, needed to finance costs associated with unanticipated events which could threaten the safe and uninterrupted use of the Seaway.

SENATOR LAUTENBERG: What have been the draw downs from this account in 1987, 1988, and to date for 1989? (List activity, description and amount of funds used.)

ANSWER:

1987	Operations & maintenance	$2,000,000
1988		- 0 -
1989		- 0 -

REVENUES

SENATOR LAUTENBERG: Update the revenue and commodity estimates found on page 701 of last year's Senate Hearing.

ANSWER:

	FY 1988 actual	FY 1989 estimate	FY 1990 estimate
	($ and tons in millions)		
GRAIN	17.64	14.95	14.70
IRON ORE	10.58	10.51	10.47
COAL	0.70	0.76	0.77

OTHER BULK	8.37	8.94	9.06
GOV'T AID	0.18	0.09	0.15
GENERAL	4.29	4.64	4.70
TOTAL TONS	41.76	39.89	39.86
TOLL REVENUE	$10.11	$9.99	$10.21
TOTAL REVENUE	$11.21	$11.09	$11.31

SENATOR LAUTENBERG: Update the chart on pages 701 and 702 of last year's Senate Hearing (on calendar year tonnage and tolls).

ANSWER:

CALENDAR YEAR TONNAGE
(millions of tons and dollars)

	ACTUAL				ESTIMATED	
	1985	1986	1987	1988	1989	1990
GRAIN	16.37	16.35	18.32	15.47	14.59	14.78
COAL	0.61	0.61	0.23	0.76	0.77	0.78
IRON ORE	8.68	8.03	9.56	10.77	10.38	10.51
GENERAL	4.05	4.01	4.05	4.60	4.66	4.72
ALL OTHER	7.61	8.58	7.80	8.95	9.08	9.30
TOTAL	37.32	37.58	39.96	40.55	39.48	40.09
TOLLS REV	$9.01	$9.15	$9.53	$10.05	$9.85	$10.42

SENATOR LAUTENBERG: What are the projected revenues (toll and other) for fiscal years 1990 through 1994?

ANSWER: The latest projections, which were developed subsequent to the preparation of the 1990 budget are as follows:

ESTIMATED REVENUES FY90 thru FY94
(millions of $)

	TOLLS	OTHER	TOTAL
FY90	$10.21	$1.10	$11.31
FY91	$10.50	$1.10	$11.60
FY92	$10.64	$1.10	$11.74
FY93	$10.78	$1.10	$11.88
FY94	$10.92	$1.10	$12.02

SENATOR LAUTENBERG: What is the latest estimate of revenues (toll and other) for fiscal year 1989?

ANSWER: (in millions of dollars)

Tolls	$ 9.99
Other	1.10
Total	$11.09

COMMODITY MOVEMENTS

SENATOR LAUTENBERG: Update the commodity movement charts found on pages 702 and 703 of last year's Senate Hearings (calendar years 1978 through 1988).

ANSWER: The information follows:

MONTREAL - LAKE ONTARIO SECTION
SELECTED COMMODITIES
(Cargo Tons)
1978 - 1988

Selected Agricultural Commodities

YEAR	WHEAT	BARLEY	CORN	SOYBEANS	RYE, OATS & FLAXSEED
1978	14,050,681	2,533,010	6,454,239	2,201,723	577,779
1979	10,015,187	3,198,940	7,088,033	1,456,072	662,855
1980	13,748,536	2,075,165	6,518,482	1,295,041	1,054,730
1981	11,922,095	2,949,190	5,075,126	1,542,048	836,476
1982	13,881,092	3,204,032	3,752,675	1,047,779	682,713
1983	15,609,328	3,706,243	2,767,967	300,790	626,191
1984	15,917,622	2,397,722	2,771,791	898,514	306,987
1985	11,502,016	686,598	2,508,872	736,590	875,648
1986	11,170,735	1,911,348	1,051,170	1,189,345	507,934
1987	12,559,195	1,422,006	2,117,099	1,104,387	516,194
1988	10,578,321	1,115,540	2,292,660	715,604	306,819

MONTREAL - LAKE ONTARIO SECTION
SELECTED COMMODITIES
(Cargo Tons)
1978 - 1988

Selected Mine and Manufactured Commodities

COAL & COKE	IRON ORE	STONE, SAND & GRAVEL	SALT	FUEL OIL	MANUFACTUR IRON & STE	% OF TOTAL
3,427,038	13,542,178	122,679	746,982	1,887,976	3,588,819	83.8
2,820,401	14,817,154	404,569	833,813	2,326,932	3,107,744	85.4
1,626,942	11,005,222	217,941	782,430	1,563,481	2,084,713	84.9
2,527,798	12,926,853	65,929	1,134,948	1,838,507	2,905,186	86.5
1,834,463	7,430,414	36,264	714,901	1,002,035	2,790,012	85.0
988,212	10,280,210	55,729	878,535	936,121	2,896,137	86.7
1,246,010	11,421,521	124,294	818,931	745,378	3,552,873	84.6
1,409,374	8,679,210	259,048	657,494	558,770	3,609,221	88.0
1,477,031	8,026,080	288,157	874,520	641,156	3,548,802	81.7
888,188	9,557,376	231,658	928,559	481,049	3,614,403	88.6
2,179,663	10,810,682	432,411	1,027,602	879,488	4,316,733	85.8

REPLACEMENT AND IMPROVEMENT PROJECTS

SENATOR LAUTENBERG: Provide a listing with associated costs of the replacement and improvement projects done in fiscal year 1988, those planned for fiscal year 1989, and those planned for fiscal year 1990.

ANSWER: Replacements and Improvements Projects

Fiscal year 1988:

Install Video Transmission Snell/Snug Harbor/Eisenhower	$ 81,000
Lockwall Stability	180,000
Relocation of Elec. Cables - Guidewalls	440,000
Improve PA Systems, Both Locks	14,000
Replace Rubber Seals on Stoplogs	14,000
Replace Hatch Covers	38,000
Install Miter Gate Jacking Device	19,000
Improving Fendering Systems	132,000
Replace Underground Fuel Tanks	27,000
Additional Lighting at Eisenhower	10,000
Conversion of Nav. Aids to Solar Power	17,000
Resurfacing Existing Service Roads	58,000
Extend Docking Fac. at Marine Base	666,000
Replace Remote Radio Station at Sodus	23,000
VTC Vessel Status Display Study	57,000
Vista House Deck Improvement	18,000
Miscellaneous	34,000
TOTAL	$1,828,000

Fiscal year 1989:

Replace Hatch Covers	$ 25,000
Pedestrian Steps Near Parking Lot @ Ad. Bldg	10,000
Safety Improvements	20,000
Fender Boom Modifications	10,000
Upgrade of Lock Control Elec. Equipment	40,000
Conversion of Nav. Aids to Solar Power	40,000
Installation of Sector Light @ Chimney Island	10,000
Construction of Fixed Light No. 55	150,000
Improve Pavings - Guardwall Service Roads	135,000
Improve Existing Pavings Near Eisenhower Visitor Center	45,000
Training Dike Improvement	250,000
Improve LaFargeville Remote Radio Station	70,000
VTC Vessel Display System (System Requirement)	50,000
Replace VTC Radio Consoles	75,000
Replace Fender Boom #2 to Accommodate Max. Ships	50,000
Marine Base Office and Shop Facilities	250,000
Improve Clayton Dock for Seaway Operation	50,000
Eisenhower Visitor Center Improvements	10,000
Vessel Speed Study for the St. Lawrence River	50,000
New Tile Gauge @ Eisenhower Lock	15,000
Replace Underground Fuel Storage Tanks	157,000
VTC Computerized Vessel Display - Study	34,000
Other Improvements	59,000
TOTAL	$1,605,000

Fiscal year 1990:

Replace Hatch Covers	25,000
Safety Improvements	10,000
Upgrade Lock Control Electrical Equipment	50,000
Install Sector Light at Point Vivian	15,000
Construct Fixed Light No. 54	175,000
Install Racon at Seaway International Bridge	60,000
Upgrade Marine Base Office and Shop Facilities	90,000
Install New Tile Gauges at Both Locks	15,000
TOTAL	$ 440,000

SENATOR LAUTENBERG: The 1989 budget estimated $465,000 to replace the main engine on the Tug ROBINSON BAY. The 1990 budget requests $2,000,000 for repowering the same tug. How do these estimates relate? What will the entire tug useful life extension project cost? When will it be completed? What is the Corporation doing in the meantime?

ANSWER: The original estimate was for preliminary design, engineering plans, and engine modification. Subsequent to the 1989 budget request, experts from the Corps of Engineers were retained by the Corporation to examine not only repowering the engine but also increasing the vessel capability to properly handle the new buoy barge obtained by the Corporation in 1988. The Corps of Engineers as well as other industry sources indicated repowering the engine and increasing the vessel's capability to adequately and efficiently handle the new barge both in terms of maneuverability and speed would be the most cost-effective option. Repowering and increasing the vessel's capability will increase the useful life of the tug by 30 years at an estimated cost of $2,000,000. The project is expected to be completed by November 1, 1990. In the meantime the Corporation will utilize a smaller vessel, the LEWIS CASTLE, for light work and if the need for a larger vessel arises, request use of a Coast Guard vessel.

EQUIPMENT PURCHASES

SENATOR LAUTENBERG: Provide a listing with associated costs of the equipment purchases made in 1987, made in 1988, and those planned or made for fiscal year 1989 and 1990.

ANSWER:

1987 equipment purchases

Computer Equipment	$ 94,000
Dredging Barges	202,000
Loader, Backhoe	30,000
Sky Climbers	7,000
Hydraulic Vehicle Lift	5,000
Replace T.V. Cameras	161,000
Engineering Equipment	41,000
Small Tools, Safety & Office Equipment	34,000
TOTAL	$574,000

1988 equipment purchases:

Buoys	90,000
Computer Equipment	65,000
Air Compressors	60,000
Safety Equipment	11,000
Lock Wall Vehicles	8,000
Engineering Equipment	14,000
Small Tools and Equipment	18,000
Office Equipment	13,000
Work Boats	21,000
Tractor, Loader	14,000
TOTAL	$ 314,000

1989 planned equipment purchases:

Engineering Design to Repower Robinson Bay	200,000
Office Equipment	15,000
Computer Equipment	50,000
Replace Horizon Telephone Switch @ Eisenhower	40,000
Uninterrupted Power Supply (UPS) for VTC Center	15,000
Replace Lighted Buoys	60,000
Replace Surveying Equipment - Distance Meter	12,000
Replace Generator on Work boat (Fourth Coast)	8,000
Replace SLS-13, Bucket Truck w/outriggers	45,000
New Roller/Vibrator	15,000
Replace Grader	135,000
TOTAL	$ 595,000

1990 planned equipment purchases:

Office Equipment	15,000
Computer Equipment	50,000
Replace Lighted Buoys	60,000
Lock Performance Recording System	15,000
Replace Trucks	70,000
Upgrade Hydrographic Surveying Equipment	50,000
Repower Tug Robinson Bay	2,000,000
TOTAL	$2,260,000

OPERATION AND MAINTENANCE

SENATOR LAUTENBERG: Breakdown the operation and maintenance costs among the various activities. Provide this information for fiscal years 1988, 1989 and requested for 1990.

ANSWER:

	Fiscal Year		
	1988 Actual	1989 Estimate	1990 Estimate
Locks	1.20	1.35	1.40
Marine	.50	.60	.60
Maintenance and engineering	3.20	3.40	3.50
Operating support services, general expenses and development	2.30	2.40	2.50

Replacements and improvements..... 2.10	2.20	2.70
Administrative expenses..... 1.70	1.95	2.00
Total obligations.....$11.00	$11.90	$12.70

TRADE AND TRAFFIC DEVELOPMENT OFFICES

SENATOR LAUTENBERG: Provide updated cost information on the trade and traffic development offices similar to that found on page 705 of last year's Senate Hearing.

ANSWER: Cost Associated with the Trade and Traffic Office located in Toledo, Ohio.

	SLUC	COMMUNI-CATIONS	PERSONNEL COSTS	OTHER	TOTAL
1987	$7,354	$4,800	$77,628	$35,937	$125,719
1988	7,488	2,154	65,064	21,780	96,486
1989	7,788	2,240	68,968	22,315	101,311
1990	8,566	2,464	75,864	24,546	111,440

CAPE VINCENT FACILITY

SENATOR LAUTENBERG: Provide the costs associated with maintaining the Cape Vincent facility in fiscal years 1986, 1987, and estimated for fiscal years 1988, 1989, and 1990.

ANSWER:

1986	$7,600 Actual
1987	7,700 Actual
1988	7,800 Actual
1989	8,000 Estimated
1990	8,100 Estimated

SENATOR LAUTENBERG: Provide the dates the facility was used for business and recreational purposes in fiscal year 1988 and to date in fiscal year 1989.

ANSWER:

Business

FY 1988

November	27-30
December	1-3, 16-17
April	7, 8
May	11
June	8-10, 14-16, 20-23, 24, 28-30
July	20-21, 27-28
August	3-4, 9-10, 16-20, 24-25

FY 1989
(through May 17, 1989)

October	12
May	9, 17

Recreational

FY 1988

October	2-3, 16-18
November	21
April	22-23, 29-30
May	19-23, 27-30
June	17-19, 23, 24-26
July	2-3, 8-20, 22-31
August	1-9, 12-15, 21-31
September	1-11, 16-17, 24-25

FY 1989
(through May 17, 1989)

October	7-9, 14-15, 22, 25-29
November	5, 23-26
January	6-7
February	9-11
March	3-4
April	8
May	12-13

OUTSIDE CONTRACTS

SENATOR LAUTENBERG: List the outside contracts entered into by the Corporation in fiscal years 1988 and 1989; planned for the rest of 1989 and planned in fiscal year 1990 (use the format from last year's hearing record, pages 706 through 710).

ANSWER: The information follows:

OUTSIDE CONTRACTS & PROPOSED CONTRACTS FOR
FY '88 , '89, & '90

FY '88

CONTRACT # DTSL55-	CONTRACTOR	AMOUNT	DESCRIPTION
88-C-C1039	Goodfellow, Inc. Montreal, Quebec, Canada	U.S. FUNDS $197,315	Furnish & deliver 840 pieces EKKI timbers, 10 ft. lengths.
88-C-C1068	GrimmerSchmidt Corp. Franklin, IN	57,380	Furnish & deliver 2, 1988 GrimmerSchmidt Model 800D Air Compressor.
88-C-C1268	Germanetti Construction Massena, NY	413,090	Construct a Raceway at Eisenhower and Snell Locks, and insall 2 Holophane High Mast Systems at the Vista House Parking Lot.
88-C-C1634	Adirondack Asphalt, Inc. Canton, NY	39,624	Clean & Apply Bituminous Surf. treatment to Roadways & Parking Areas at both Locks and Maintenance Facility.
88-C-C1643	M. Hubbard Constr., Inc. Skaneateles, NY	666,053	Construct Dock Extension at Maintenance Facility and Furnish & Install Rubber Fenders.
88-C-C1669	Geo. B. McKenna & Son, Inc. Norwood, NY	19,613	Clean & Construct Asphalt Overlay Parking Area at Vista House.
88-C-C1757	Interface Services, Inc. E. Syracuse, NY	144,000	Remove, Dispose & Install Petroleum Tanks, and furnish & install above-ground tanks for waste oils and paint thinner & solvent.

CONTRACT # DTSL55-	CONTRACTOR	AMOUNT	DESCRIPTION
88-C-C1812	North Start Tower Canton, NY	$ 7,239	Remove & Install two Coaxial Cables at Thousand Islands Bridge.
88-C-C1819	IKG/Greulich Cheswick, PA	26,301	Furnish & deliver 5 pieces of concrete half filled & concrete filled steel bridge flooring.
88-C-C1858	H. Schickel Gen. Contr. Malone, NY	22,000	Place steel reinforcing, form and pour back a section of the concrete cap that was removed from the downsteam guidewall extension at Snell Lock.
88-C-C1875	The Journal of Commerce New York, NY	39,305	Provide subscription furnishing on-line access to PIERS (Port Import/Export Reporting Service), computer data for 1988.
		FY '89	
89-C-C0100	Avondale Industries, Inc. New Orleans, LA	44,739	Furnish & deliver Lock Spare Parts.
89-A-C0158	U. S. Coast Guard Washington, D.C.	61,500	5 Navigation Buoys.
89-C-C0171	Hiawatha Utility Equipment Services Division Clay, NY	36,599	Furnish & deliver 1 Bucket Truck without Outriggers.
89-C-C0190	Schroon Lake Tractors, Inc. Gouverneur, NY	97,781	Furnish & deliver 1 John Deere Motor Grader with Frink Snow Removal Equipment.

CONTRACT # DTSL55-	CONTRACTOR	AMOUNT	DESCRIPTION
89-C-C0182	Seaway Diving & Salvage Company, Inc. Clifton Park, NY	$ 10,000	Repair damages Air Curtain at Snell Lock.
89-A-C0322	U. S. Army Corps of Engineers Washington, D.C.	25,000	Supervise and Assist with Anchor Investigation at Eisenhower Lock.
89-C-C0577	NAVENCO MARINE, INC. Valleyfield, Quebec, Canada	U.S.FUNDS 30,785	Furnish & Deliver 2,000 ft. Oil Boom & 12 Towing floats.

PROPOSED CONTRACTS FOR BALANCE OF FY '89

IFB #DTSL55-89-B-C0212 issued 4/22/89 with bid opening scheduled for 6/8/89 to furnish design and specifications for repowering and modifying the Corporation-owned Tug "Robinson Bay". Estimated Cost $190,000.

IFB #DTSL55-89-B-C0523 issued 5/3/89 with bid opening scheduled for 6/6/89 to plane, clean, and construct an asphalt overlay on the pavement east of the parking area at the Visitor's Center at Eisenhower Lock. Estimated Cost $35,000.

P.R. #89-N-C0521 A/E Services to design and prepare specifications and drawings for construction of a combination blast-cleaning/painting facility. Estimated Cost $25,000.

P.R. #89-N-C0568 develop and conduct a demonstration program, with maximum input from lakes maritime industry and professional assistance, of a realistic, computerized information system. Estimated Cost $150,000.

PROPOSED CONTRACTS FOR BALANCE OF FY '89 (Cont'd)

Construction of Fixed Light No. 55, Massena, St. Lawrence County, NY, Estimated Cost $148.000.

Improve Pavings - Guardwall Service Road, Massena, St. Lawrence County, NY, Estimated Cost $133,000.

Improve Remote Radio Station, Lafargeville, Jefferson County, NY, Estimated Cost $29,000.

Construct combination blast-cleaning/painting facility, Marine Base, Massena, St. Lawernce County, NY, Estimated Cost $225,000.

PROPOSED CONTRACTS FOR FY '90

Re-power Corporation-owned Tug, "Robinson Bay". Estimated Cost $2,000,000.

Construct Auto Shop, Marine Base, Massena, St. Lawrence County, NY, Estimated Cost $90,000.

OFFICE OF INSPECTOR GENERAL

STATEMENT OF JOHN MELCHNER, INSPECTOR GENERAL

Mr. Chairman and members of the Subcommittee, it is a pleasure to meet with you to discuss the Fiscal Year 1990 budget request for the Office of Inspector General. Accompanying me today are Mr. Raymond DeCarli, Assistant Inspector General for Auditing, Mr. H. Rae Scott, Assistant Inspector General for Investigations, and Mr. John Lainhart, Assistant Inspector General for Policy, Planning, and Resources.

Our budget request for Fiscal Year 1990 is for $32.5 million and 470 full-time permanent positions. This request represents an increase of $3.5 million over the appropriation level in 1989. Of this increase, $2.6 million, or 74 percent, is for nondiscretionary expenses, such as increases in rental rates charged by the General Services Administration for office space, increased contract audit cost for service provided by the Defense Contract Audit Agency to the Department, mandatory General Accounting Office training requirements for auditors, and cost of living or inflation adjustments. Discretionary increases have been requested for critical computer support equipment needed by the audit and investigative staff, improved quality assurance and planning programs, and additional investigative equipment.

OVERALL ACCOMPLISHMENTS

During Fiscal Year 1988, we issued 1,916 audit reports. We made recommendations to improve the economy, efficiency, and effectiveness of Department of Transportation programs and operations with a potential impact of $350 million and questioned the eligibility of $112 million of costs. The resolution of audit findings resulted in management commitments to seek recoveries and more effectively use resources amounting to $414 million.

We opened 225 investigative cases and closed 190 cases. Investigative and prosecutive efforts during this period resulted in 70 convictions; 133 indictments; $5 million in fines, restitutions and recoveries; 52 debarments and suspensions; 141 other administrative actions; and 71 years in prison sentences.

When audit and investigative accomplishments are taken together, the financial benefits equal more than 15 times the amount of our Fiscal Year 1988 obligations.

AUDIT ACCOMPLISHMENTS

We are continuing to concentrate our audit resources on Departmentwide and Modalwide audits. These audits are proving successful in assessing entire programs, and the managers prefer the balanced perspective that they provide. For example, we

recently completed an audit to determine if states were properly billing the Federal Highway Administration for parcels of land acquired for rights-of-way for highway construction. During the 3-year period ended September 30, 1987, the Federal Highway Administration participated in acquisition costs for rights-of-way totaling $2.7 billion. Our audit reviewed costs incurred in 16 states, where about 70 percent of the cost had been expended. In 12 of the 16 states reviewed, we found that right-of-way acquisition costs charged to the Federal Highway Administration were generally allowable and reasonably accurate. While billing errors resulted in $3.7 million net overpayments to these 12 states, the errors were not significant in relationship to the states' total cost billed, and there was no indication that serious billing system weaknesses existed. Inadequate control over the billing process in the other four states resulted in over $26.5 million in unallowable right-of-way acquisition costs being billed. The Federal Highway Administration has taken action to recover the costs improperly billed and strengthen the states billing process to ensure greater accuracy of future charges. An important result of the audit from the Federal Highway Administration's standpoint was that the audit showed that their policies and procedures were adequate, and most states were adhering to the established rules. Also, by comparing results with a similarly sized state, the Federal Highway Administration was able to diffuse arguments put forth by a large state that the $16.1 million in overbillings were not significant in relation to the overall program and ought to be acceptable.

The extent of audit work required by legislation and requested by congressional committees continues to grow. For example, as required by legislation, we review the accuracy and propriety of Coast Guard Superfund expenditures that are billed to the Environmental Protection Agency, and we annually assess the Department's control for awarding and monitoring consulting service contracts. At the request of congressional committees, we reviewed the utilization rates of the Coast Guard Falcon Jets, examined the Federal Aviation Administration's management of the Aircraft Purchase Loan Guarantee Program, and evaluated the Federal Highway Administration's management of the Disadvantaged Business Enterprise program. At the request of the House Appropriations Subcommittee on Transportation, we are currently auditing the Essential Air Service program.

That subcommittee has had a special interest in the level of contract audit support that we provide to the Department. We have taken actions to ensure that acquisition officials receive the full range of contract audit support that they need to protect the Government's interests. Special attention was given to the Federal Aviation Administration's contracts for the National Airspace System Plan, Systems Engineering Integration and the Advanced Automation System.

Additionally, we receive numerous requests from individual members of Congress to review specific issues of interest to them. Each of these is evaluated and promptly answered.

While our audit efforts obviously concentrate on improving Department of Transportation operations, we have been alert to identify potential Governmentwide problems and share our expertise with other departments. For example, we developed an audit program and computer software to evaluate the adequacy of computer security at computer centers. After applying these tests within the Transportation Department, and finding serious weaknesses, we worked with nine other Inspector General organizations to determine if the weaknesses existed elsewhere in the Government. We found serious weaknesses at all locations audited. Using terminals just like those used by regular users to access the systems, the Inspectors General demonstrated to agency information systems managers the seriousness of these weaknesses. For example, in the presence of agency information systems managers, auditors took control of the agency's computer system and could have accessed, modified, and/or destroyed sensitive data and disrupted the continuity of information processing activities. The auditors convinced agency managers that they, or any knowledgeable user, could have performed any of those adverse acts without being detected. This effort resulted in a report by the President's Council on Integrity and Efficiency to the Office of Management and Budget which recommended additional steps that needed to be taken to improve computer security across the entire Federal Government.

INVESTIGATIVE ACCOMPLISHMENTS

We continue to concentrate our investigative efforts on fraud in Department of Transportation-funded grant programs and on the Department's procurement process. Since the start of Fiscal Year 1988, we have investigated allegations of fraud in 85 grant cases and 74 procurement cases. The detection and prevention of bid rigging activities in Department of Transportation-funded programs continues to be a priority effort although other investigative workload has resulted in a smaller percentage of our resources being available for this important work. During Fiscal Year 1988, our joint efforts with the Justice Department Antitrust Division resulted in 8 indictments, 16 convictions, $600,000 in fines and 20 years probation. We have continued to emphasize to Modal elements that debarment is an appropriate action for firms convicted of criminal violations. There were 17 such debarments initiated during Fiscal Year 1988. The State of Texas reported to us in January of this year that they have recovered over $11.5 million since September 1987 from contractors who were previously convicted of bid rigging.

During the past year we have had matters referred to us which impacted on safety within the transportation industry. Five cases involved substandard or counterfeit bolts and fasteners which did not meet prescribed standards.

In one case, a fastener distributor delivered 25 shipments of

National Aeronautical Standard specification fasteners to a major airline maintenance facility. The fasteners were never tested although the supplier certified that they met the specifications. There is no record of which planes received the untested fasteners. The Federal Aviation Administration and the airline involved have taken action to address any safety concerns.

In another case, our investigation disclosed that approximately 18 percent of the bolts used to anchor metal bridge railings were "dummy bolts." These anchor bolts were made to appear adequate to inspectors by using short bolts, tack-welded bolts, and glued nut-bolt assemblies. On February 9, 1989, a Federal grand jury indicted the company and their superintendent.

We also conducted computer matches which compared Federal Aviation Administration records of data provided by airmen on their medical certificates with data reported for these same airmen in law enforcement data bases. The purpose was to identify airmen convicted of drug- and/or alcohol-related offenses who had failed to disclose it to the Federal Aviation Administration. The convictions must be reported as part of an airman's periodic medical examination to evaluate whether the applicant is medically fit to fly. The information is also used by the medical examiners in evaluating whether the airman may have a drug or alcohol abuse problem which could impair aviation safety.

Our review of the computer matches produced a total of 4,818 airmen who falsified information on their medical certificates and met criteria for referral to our field elements for investigation and subsequent referral to cognizant U.S. Attorney's offices. These names, plus others identified during the match, were sent to the Federal Aviation Administration for appropriate administrative action. All 4,818 cases have been referred to 90 different U.S. Attorneys. Our most recent count shows 340 individual cases have been accepted for prosecution, 3,279 cases have been declined, and 1,199 cases are still pending a prosecutive decision.

Forty-three pilots have been indicted to date, and 18 pilots have been convicted or have pled guilty to charges against them.

Presently, we have one investigation under the Program Fraud Civil Remedies Act which the Department's reviewing official has referred to the Department of Justice. Justice has responded, and the Department's reviewing official is assessing the response to determine how best to proceed. We have 22 investigations under way which have future potential under the Act - six false statements and sixteen false claims.

AUDIT AND INVESTIGATIVE PRIORITIES

We will continue to assess, in coordination with the General Accounting Office, the audit coverage needed for National

Airspace System procurements and facility integration. Audits will focus on areas where improved controls, plans, or testing can achieve more effective results. We will continue to evaluate the management and administration of the Federal-aid highway program in regard to construction inspection and monitoring activities, financial management systems of state highway agencies, administration of construction contracts, and safety inspection programs. Assessments will be made of mass transit grant awards and administration activities, fund control, and reviews of project construction contract administration activities. Some audit oversight will be directed toward safety related enforcement and research activities. We will continue to monitor programs for acquisition, construction, and improvement of Coast Guard facilities and reviews will be made to determine whether effective and efficient use is being made of available resources and whether mission goals are being achieved. Audit resources will continue to be applied to assessing the integrity and security of computer systems in the Department, and we will also continue our focus on internal control issues under the Federal Managers Financial Integrity Act.

A primary investigative priority will continue to be cases which could involve the safety of the traveling public. In these instances, we will continue to work closely with safety officials throughout our investigative activity to prevent or decrease the possibility of an incident or accident. We will also continue to concentrate our investigative efforts on grant and procurement

fraud throughout the Department of Transportation. The majority of our recent investigations have been conducted in areas of grant and procurement fraud, and we will maintain our current level of investigative interest in this important area. Bid rigging investigations will also remain a high priority investigative area. We are currently conducting an investigation into what we believe is a multi-state bid rigging scheme, somewhat different from the more localized bid rigging activity which we have previously discovered. We have also expanded the scope of our bid rigging inquiries to include traffic signals, highway fencing, and other related industries as well as the traditional road building industry.

SUMMARY

I believe the coming year will be challenging for the Office of Inspector General; a year in which we will continue to face tough choices on how best to allocate our limited resources to provide the necessary audit and investigative support to the Department. I am confident my office can fulfill its responsibilities with the resources requested for Fiscal Year 1990, and I look forward to the challenge.

This concludes my statement. I will be glad to answer any questions you may have.

QUESTIONS SUBMITTED BY SENATOR LAUTENBERG

Urban Mass Transportation Administration

SENATOR LAUTENBERG: In the past, the Inspector General has questioned the Urban Mass Transportation Administration's (UMTA) financial management practices. Specifically, the areas in question are: 1) their closing out of projects that have been completed; and 2) the amount of unliquidated obligations that remain on the transit agency's books. Have you seen any improvement in these two areas the past year? If so, please explain the improvements or changes that have been made, and if not, please describe what UMTA or the Inspector General is doing to cure these problems.

ANSWER: We have seen substantial progress in closing out projects that have been completed. During FY 1988, UMTA closed out 2,400 projects and deobligated more than $203 million. Consequently, they reduced the number of open projects on their books to less than 7,000, from a high of around 15,000 projects in FY 1983. That same progress however is not reflected in UMTA's unliquidated obligations on the books at year end. At the end of FY 1985, their unliquidated obligations totaled $8.3 billion. At the end of FY 1988, their unliquidated obligations totaled $9 billion. UMTA officials maintain, but we have not evaluated, that much of this balance was from large dollar construction projects, which take several years to complete. Closing completed projects and deobligating unneeded funding continues to be a priority item within UMTA. Our last audit report on UMTA's unliquidated obligations issued February 8, 1988, and covering the period ending in FY 1986, showed that UMTA's Financial Management System (FMS) (1) contained accounting errors of $213 million of open obligations on 143 projects that had been closed by Program/Regional offices, and (2) included nine projects with $1.4 million of unliquidated obligations that could have been deobligated and reprogrammed. UMTA has taken corrective actions to improve the accuracy of data in the FMS and deobligate unneeded funds identified. As part of a President's Council on Integrity and Efficiency (PCIE) audit, we are currently reviewing the unliquidated balances in UMTA's "Merged Accounts."

SENATOR LAUTENBERG: In the past, this Committee has provided UMTA substantial funding to improve the accuracy of its financial data by funding financial management system upgrades. Could you please report on the improvements you have seen in UMTA's financial management system?

ANSWER: We are completing a major audit of UMTA's Grants Management Information System (GMIS). Phase I of GMIS, which was implemented in May 1988, provided UMTA with automated functions for improving the tracking of $30 billion in outstanding grant funds. In addition, UMTA implemented Phase II in June 1989 to enhance grant management capabilities, including the ability of grant recipients to have online access to a subset of GMIS functions. By implementing additional capabilities and internal controls, we generally feel that UMTA has made significant improvements which will substantially increase data accuracy in its financial management systems.

While this audit is not yet complete, we have seen some improvements in UMTA's GMIS and FMS, which will substantially increase data accuracy. Noteworthy improvements include (1) developing and implementing new GMIS capabilities, previously not incorporated in its predecessor system--Grants Management System (GMS), and (2) building improved data input and processing controls into GMIS. Improved capabilities of GMIS Phase I have enabled UMTA to share and reconcile data between GMIS and FMS. Prior to the implementation of GMIS, UMTA was not able to automatically reconcile the difference in unliquidated obligations between the two systems. For example, in July 1986 this difference totaled $8 billion, but, as of May 1989, the outstanding balance had been reduced to $.5 million (most of which can be attributed to differences in the cut off dates for reporting). Further, additional capabilities implemented in GMIS Phase II include enhancements to post-award grant management and grantee compliance with regulations. These new capabilities were designed to assist UMTA and the grant recipients in managing and maintaining accountability over grants. In addition, the online access to GMIS data by grantees provides a mechanism for earlier detection and correction of errors--thereby increasing data accuracy. However, this online access by grantees accentuates the need for GMIS to contain strong access and security controls. We have identified several security-related issues needing UMTA's attention, and recommendations for addressing these issues will be included in our upcoming report on GMIS internal controls.

In addition, UMTA designed automated controls into the funds control subsystem of GMIS Phase I to improve the accuracy of individual transactions within GMIS and FMS. These controls were designed to prevent, detect, and facilitate correction of input and processing deficiencies previously observed in GMS (such as inadequate edits and validity controls) which resulted in duplicate, omitted, and/or incorrect entries. In verifying system controls, we have evaluated UMTA's comprehensive testing process, concluding that the internal controls designed into UMTA's funds control subsystem were adequately coded and tested.

SENATOR LAUTENBERG: Why does the Urban Mass Transportation Administration have large, unliquidated obligations?

ANSWER: The unliquidated balances remain on the books for quite some time because there are usually large dollar construction projects, such as subway and light-rail projects, which take several years to complete. UMTA obligates all the project funds at the time of grant approval, so the accounting records for these projects have large unliquidated balances during the early stages of the projects.

SENATOR LAUTENBERG: Many projects, when completed, still have balances of unliquidated obligations on their books. What is the process that UMTA employs to close out these grants, and what happens to the unliquidated obligations?

ANSWER: UMTA determines when projects are ready for closeout through review of grantee prepared quarterly status reports and GMIS and FMS project status reports, on-site visits, and discussions with grantee officials. Once it has been

determined that a project is ready for closeout, the program office responsible for the project (usually 1 of the 10 regional offices), closes the project through the GMIS and deobligates the funding through the FMS. Unliquidated non-discretionary funds are added to the amount of non-discretionary UMTA funds available for apportionment for the succeeding fiscal year. Unliquidated discretionary funds deobligated by UMTA are available for UMTA to reobligate if the funds have not lapsed.

SENATOR LAUTENBERG: What discretion does the UMTA Administrator have in reassigning or granting these non-discretionary funds to other projects?

ANSWER: Under current legislation, the UMTA Administrator has no discretion in reassigning non-discretionary funds to other grantees' projects. If non-discretionary funding is deobligated after its initial period of availability, the funds are redistributed the following year through the apportionment formula.

SENATOR LAUTENBERG: For the record, please provide the amount of unliquidated obligations that have been made available as discretionary funds for the Urban Mass Transportation Administrator, and if possible, identify the program categories in which these unliquidated obligations have become available.

ANSWER: A total of $19,743,161 was made available as discretionary funds during FY 1988 through the recovery of prior year unliquidated obligations. The sources of these funds were as follows:

Category	Amount
Section 3 (Bus, Rail, and New Starts)	$17,111,161
Section 8 (Planning)	329,380
Section 16(b)(2) (Elderly and Handicapped)	83,779
Section 9A (Capital Formula, FY 1983 only)	2,170,088
Section 4i (Innovative Techniques)	48,753
	$19,743,161

Section 3, 8, and 4i funding must remain within the Section in which it was originally obligated. Section 16(b)(2) funding is redistributed through an UMTA administrative formula based on the elderly and handicapped population but it must remain within that Section. Section 9A funding, available only in FY 1983, could be redistributed as discretionary funds.

SENATOR LAUTENBERG: In the recent past, the Inspector General has commented on two other UMTA areas that needed improvement. One is regarding UMTA's spare parts policy, and the other is UMTA's monitoring of the use of transit vehicles as school buses. What has the Inspector General's office done in these two areas? Are you getting cooperation from the transit agency in improving these programs?

ANSWER: We reviewed UMTA's spare parts policy in two UMTA regions. In both regions, we found that transit authorities erroneously claimed as capital grant expenditures the rebuilding

of bus components. In one of the regions, we also found that UMTA had not obtained reimbursement for the disposal of spare bus components that were purchased with UMTA capital assistance funds. UMTA's position on funding the rebuilding of bus components has not been consistent. In one region, UMTA concurred with the audit and obtained a $197,170 refund from the transit authority. In the other region, UMTA has not concurred and has not sought the refund totaling $20.2 million. We have asked the Department's followup official for assistance in resolving this dispute. I would point out, however, that subsequent to the audit period, legislation was passed which now allows UMTA to fund the rebuilding of bus components. Had this legislation been in effect for the period under audit, we would not have raised either of these issues.

We have done several recent audits that assessed the use of transit vehicles as school buses. We found that in three UMTA regions, grantees were using 334 UMTA funded buses to provide ineligible or nonconforming school bus tripper service. One of these audits was a followup review on a prior audit. This followup review found that there was a continuation of the problem. Contrary to our prior recommendations, the transit authority was still using 129 UMTA funded buses costing $17 million to provide exclusive bus service. In my view, it makes no sense for the Federal government to fund $150,000 transit buses to substitute for a $35,000-$40,000 school bus that should be purchased by state and local governments.

We rely upon UMTA to obtain cooperation from transit agencies to discontinue this type of ineligible school bus service. UMTA attempts to stop this ineligible school bus service, however, as noted in our followup audit, their efforts are not always successful.

SENATOR LAUTENBERG: Briefly describe for the Committee why you think there is a continuing problem of grant oversight in UMTA.

ANSWER: UMTA has very limited staffing capabilities, particularly at the field level. When UMTA is compared to the Federal Highway Administration (FHWA), there is a large difference in their staffing structure and the approaches they use in managing their grant programs. UMTA has traditionally had about a third of its staff in the field, while FHWA has had about two-thirds of its staff in the field. During FY 1988, UMTA had a total staff of 430 people managing a budget authority program of $3.3 billion, or $7.7 million per person. Whereas, during FY 1988, FHWA had a total of 3,500 people managing a budget authority program of $13.9 billion, or $4.0 million per person. Similarly, UMTA has in excess of 750 grantees to oversee, while FHWA has only 52 grantees. These grantees are state highway administrations which have large staffs of their own.

Seventy-five percent of UMTA's headquarters staff is in staff support functions that do not relate to the program operations or what is going on out in the field. It may well be that they have got this thing properly organized; I have not looked at it in that light. I continue to see these recurring program administration problems and I have to believe that it has

its roots in the way they are organized. I plan to look at that further.

SENATOR LAUTENBERG: The Appropriations Committee a few years ago initiated the process of construction management oversight, where one half of one percent of a grantee's capital construction funds are reserved to have an outside contractor oversee the contract. In your opinion, how has this program worked? Do you think that it has saved money for the grantees and the Federal Government? Please provide examples where appropriate.

ANSWER: UMTA has implemented the process of contracting for construction management oversight. Presently, contractors are providing construction oversight on 42 UMTA grant projects. A review completed in July 1987 of two grant projects disclosed no problems related to construction oversight. We are currently evaluating the effectiveness of construction management oversight in UMTA Regions VI and IX. When these reviews are completed, we will be in a better position to render an opinion on the effectiveness of construction management oversight and will provide the committee with the results of these audits as they are completed.

SENATOR LAUTENBERG: What other changes does your office feel are necessary for UMTA to do a good job of overseeing their grants?

ANSWER: Recent OIG audit reports have indicated that more UMTA oversight continues to be needed beyond construction management oversight. Since the start of FY 1988, 36 OIG audit reports have been issued with recommendations for improvements on a variety of program management issues, including transit bus requirements, grantee financial management procedures, management of local transit systems, providing transit service exclusively for students, and grantee procurement procedures. The underlying cause for the problems we have identified has been the inability of UMTA's limited field staff to effectively oversee a grant from award to closeout. Consideration should be given to expanding the concept of UMTA contracting for oversight advisory services beyond construction management oversight. I believe the grantee procurement area, for example, would lend itself to this approach very well.

Essential Air Service

SENATOR LAUTENBERG: What is the status of the essential air service (EAS) program audit that the Inspector General's office started last year? Can you provide the Committee any preliminary findings as to that audit?

ANSWER: The verification phase of the audit has been completed. We are currently preparing a draft report which includes two preliminary findings. One finding will address the need of the Department to establish improved controls over the management of EAS funds, and the other will address the need for guidance to air carriers for preparing their claims for losses on hold-in service. We plan to issue the draft report in August for

management comments. After we receive management comments, a final report will be issued. A copy of the final report will be furnished to the Committee.

SENATOR LAUTENBERG: Is there evidence that the government has paid out money under this program for unjustified air service claims?

ANSWER: Our review of the EAS Program has concluded that the amounts paid on EAS claims has been reasonable and justified. This is attributable to our audit efforts in examining all of the larger dollar claims and the Office of Aviation Analysis' (OAA) claims review procedures, which include the proper use of our audit results.

SENATOR LAUTENBERG: What can the Office of the Secretary do to prevent these unjustified EAS claim payments?

ANSWER: First, I think it is important to point out that the EAS claims made by the carriers were often not justified but that the settlement payments were justified. There are actions which the Office of the Secretary can take to reduce the unjustified carrier claims and subsequent extensive review and evaluation efforts needed to arrive at equitable payments. These actions include developing additional guidance and criteria for hold-in carriers on the preparation of their claims. OAA has taken some steps to improve their guidance to the air carriers. However, we believe that more guidance is needed and their new guidance, although limited, has not been distributed to all applicable carriers.

SENATOR LAUTENBERG: Does the Inspector General's office on a regular basis audit the regular subsidy billings submitted by air carriers for payment?

ANSWER: We routinely review EAS air carriers' regular subsidy billings in conjunction with audits of carriers' claims for hold-in compensation. We maintain an inventory of EAS air carriers and prioritize our review of carriers' regular subsidy billings based on the amounts of subsidies paid to the carriers, size of the carriers' EAS operations, length of time in EAS program, results of prior reviews, etc. Additional reviews are performed in response to priority requests from the EAS program managers. Between FY 1987 and FY 1989 to date, we issued final reports on the regular subsidy billings of eight EAS carriers. Audits of three additional carriers are in process.

Federal Aviation Administration

SENATOR LAUTENBERG: The Federal Aviation Administration recently issued a "show cause" order to a contractor on the microwave landing system procurements. Was the Inspector General's office involved in auditing or monitoring this contract? If so, please explain your role.

ANSWER: This was a firm fixed price contract awarded through negotiation. Accordingly, the only contract audit effort provided to date has been the preaward audit which we requested from the Defense Contract Audit Agency. We are aware of the

delivery problems and increased costs that the contractor claims to have incurred on the contract. The Federal Aviation Administration (FAA) has advised us they will request audits to substantiate costs of contractor claims prior to settlement. While we have not audited this specific contract, we did audit the Microwave Landing System (MLS) program, and issued our report on March 3, 1988.

We found that since the MLS program was initiated, the current instrument landing system has been improved to such a degree, that major air carriers see no cost-benefit for investing in the expensive airborne electronics needed to use the MLS signals. They have indicated that planned advanced MLS features may make the system cost-beneficial, if those features can produce sufficient increases in runway utilization. However, the advanced features have not yet been developed. FAA had contracted for a significant number of initial MLS systems under the development contract, and was planning to contract for additional systems. We recommended that FAA delay further procurement until MLS and its advanced features have been developed and tested, and FAA had devised a rational deployment plan.

The Secretary concurred with our report, and we have been monitoring actions taken since the report was issued. FAA is engaged in planning for full testing and demonstration of MLS before totally committing to the system as the primary U.S. landing system. However, they have encountered another delay in the program since issuance of our report. It had been envisioned that MLS could be provided for more complex landing conditions by minor enhancements to the basic MLS system and development of more sophisticated software. However, FAA has since found it necessary to revise its approach, and plans to award two prototype contracts in 1990 for the more sophisticated systems.

We plan to continue monitoring FAA's implementation of this $2 billion program.

SENATOR LAUTENBERG: There exists in the facilities and equipment account of the Federal Aviation Administration (FAA) very large deferred amount of money -- over a billion dollars. Has the Inspector General's office audited this FAA account to determine why there is such a large amount of deferred funding in the facilities and equipment every year? In summary, what were the results of your findings of an audit or investigation in this area?

ANSWER: FAA has followed a full funding practice of budgeting for facilities and equipment projects. Consequently, all necessary funds to procure, install, and commission a system were included in the budget request. Since funding is provided for the system, any delay in developing the NAS Plan facilities and equipment or awarding contracts, results in a deferral. According to recent GAO testimony, FAA's FY 1990 budget request has taken several projects off full funding. This should enable FAA to decrease the time lag between receipt of appropriations and recording of an obligation.

Our limited audit work has shown that FAA was obligating facilities and equipment funds within the 5-year limit. GAO is

currently reviewing FAA's facilities and equipment issues. GAO has identified weaknesses in FAA's information systems for managing NAS Plan project implementation. As a result, these systems did not accurately show project status or provide reliable resource estimates. FAA is planning a new system to address these problems. According to FAA, it will not be fully operational until 1990. This system will be important to FAA in ensuring that future funding requests show yearly costs and implementation schedules.

SENATOR LAUTENBERG: The subcommittee was recently asked to consider reprogramming a substantial amount of FY 1989 funding in the facilities and equipment account. Some of this reprogramming was necessitated by cost increases for procurement of equipment -- as much as 12-17 percent above the original contract price. Has the Inspector General's office investigated the issue of fixed-price contracts verses cost plus contracts in the facilities and equipment area, or in the FAA's procurement area? Please provide the committee a summary of those results.

ANSWER: On some specific contracts, as part of a broader audit, we reviewed the appropriateness of the type of contract awarded but have not made this assessment on a broad scale. For example, in auditing FAA's Flight Service Automation System, we recommended that a fixed price contract was desirable considering the contractor's familiarity with the program. In this case, FAA did change from cost plus to fixed price to preclude future cost growth. Where cost growth does occur on a contract, we rely heavily upon the Defense Contract Audit Agency (DCAA) to ensure that the additional costs to the original contracts are fair and reasonable. We also rely on DCAA to determine that incurred costs are allowable, allocable, and reasonable when they pertain to cost type contracts. Our FY 1990 budget request includes $2.8 million that we will spend to obtain contract audit services.

SENATOR LAUTENBERG: The National Airspace System Plan, known as the NAS Plan, was originally estimated to cost $10 billion, starting in 1981, and was to be completed in 1991. Presently, that plan is over 7 years behind schedule and has an estimated price tag of $25 billion. Has the Inspector General's office looked into the NAS Plan planning, procedures, and procurement steps? Do you believe that this is a good area of investigation for the Inspector General, considering this program has more than doubled in cost in 8 years, and has also doubled its estimated time of completion?

ANSWER: I believe that the NAS Plan warrants very high audit priority because of the dollars involved, the importance of the program, and the problems that have occurred. The General Accounting Office (GAO) has had extensive audit coverage of the NAS Plan and we closely coordinate our audit coverage with theirs to ensure that the program receives the level of attention that it deserves. We maintain a list of NAS Plan projects that shows the size of each program and its status, as well as past, ongoing, and future audit work. Using this information, we schedule our NAS Plan audit coverage. We have completed 35 audits involving 39 of the 74 NAS Plan projects which are still

active. GAO has completed 25 audits involving 17 of the 74 NAS Plan projects. When GAO and our coverage is taken together, 60 of the 74 NAS Plan projects have received or are planned to receive some degree of audit coverage. A copy of the summary information we maintain follows. This summary information is supported by detailed data for each of the NAS Plan projects.

NAS PLAN COST/SCHEDULE/AUDITS AS OF MAY 15, 1989
SUMMARY, ALL NAS PLAN PROJECTS

MAJOR CATEGORIES, NAS PLAN SYSTEMS/PROJECTS	# SYSTEMS / PROJECTS TOTAL	ACTIVE	AUDITED	TOTAL COST	AUDITS COMPLETED DOT	AUDITS COMPLETED GAO	AUDITS IN PROCESS DOT	AUDITS IN PROCESS GAO	AUDITS PLANNED DOT	AUDITS PLANNED GAO
				(MILLIONS)						
A. MAINTENANCE AND OPERATIONS SUPPORT SYSTEMS	18	18	9	$ 3,915	12	1	2	2	4	0
B. AIR TRAFFIC CONTROL (ATC) SYSTEMS - EN ROUTE SYSTEMS	16	13	7	4,487	1	10	0	3	2	3
C. ATC SYSTEMS - TERMINAL AUTOMATION SYSTEMS	17	12	6	915	5	2	0	2	1	0
D. ATC SYSTEMS - FLIGHT SERVICE + WEATHER SYSTEMS	13	9	5	1,172	4	7	1	0	1	0
E. GROUND-TO-AIR SYSTEMS	17	16	10	4,481	9	4	1	4	1	0
F. INTERFACILITY COMMUNICATIONS	9	6	2	683	4	1	1	1	0	0
TOTALS	90	74	39	$ 17,653	35	25	5	12	9	3

NOTE: NUMBER OF PROJECTS AND TOTAL COSTS ARE ACCORDING TO FAA'S JUNE 1988 NAS PLAN. HOWEVER, GAO ESTIMATES THAT COSTS WILL EXCEED $25 BILLION BY THE YEAR 2000.

SENATOR LAUTENBERG: It is recognized that the Urban Mass Transportation Administration has its problems in overseeing its grants process. The Federal Aviation Administration also administers a large grant program, the Airport Improvement Program (AIP), of approximately $1.4 billion a year. What is your estimate of how well FAA manages and oversees this program? Would something like the project construction oversight program help the AIP program, would it be applicable to the programs that it finances?

ANSWER: We are in the process of completing a modalwide review of FAA's management and oversight of the Airport Improvement Program as relates to airport pavements constructed in accordance with FAA specifications. Preliminary results indicate that FAA has permitted airport sponsors nationwide to use hundreds of thousands of tons of asphalt and in excess of a million square yards of concrete pavement for airport runways where the installed materials were not sufficiently tested for required adherence to established specifications. This situation was occurring because FAA and airport sponsor officials failed to include penalties in the contracts where material does not meet specification; used testing procedures which understated the extent of conformance with specifications; relied on the judgment of each sponsor's engineer to reject or penalize for nonconforming procedures; used construction contracts which were ambiguous and less stringent than FAA specifications; and failed to obtain timely contractor correction of nonconforming procedures. Beyond the monetary implications of overpayment for this nonconforming material, pavement performance predictive models indicate that there will be a substantial loss in pavement service life. In fact, 3 of 38 pavements reviewed were already displaying some deterioration after only 3 or less years of an anticipated 20-year life.

At this time we believe the pavement problem can be corrected by FAA without having to resort to outside consultant

sources, such as UMTA has had to do. We will perform sufficient followup to ensure that needed improvements do occur. Should the desired resources not materialize, we would look at other possible options including recommending that FAA obtain the services of project management oversight consultants.

We have not looked at any areas outside the pavement area so I can not comment on FAA's management oversight procedures beyond airport pavements.

SENATOR LAUTENBERG: There has been a nagging concern that airports, in accounting for their revenues, have allowed some of those revenues to be siphoned off by the counties, cities, states or port authorities for non-aviation, non-airport related activities. Has the Inspector General ever found any instances of this being true? If so, please describe.

ANSWER: Based on several audits that we have done in this area, we do not believe the siphoning off of revenues is a widespread problem. In most cases, the revenue dollar amounts that we identified have been relatively small. A typical example is where we found one airport was not collecting fair market rental for non-aviation use of airport property. The leases were at rates far below the market value; lease cost escalation clauses were omitted; lease payments were in arrears; and free office space was being provided. These deficiencies culminated in lost revenues of about $400,000 in 1987. Where we have identified these situations and apprised the FAA, they have usually suspended funding on current grants until the airport authority brought the use of airport property into compliance with the rules.

SENATOR LAUTENBERG: In October, the Inspector General's office issued a report which, paraphrasing, stated that the FAA does not have a system for effectively planning for staffing needs. Is this still a problem with the FAA, and what staffing imbalances did you find during this audit? What problems did the FAA's lack of a position management system cause FAA? Did this lack of a position management system impact on aviation safety? If so, please elaborate.

ANSWER: We reported on FAA's allocation and use of personnel on October 21, 1988. While prioritizing the hiring of safety-related personnel at the direction of Congress, FAA failed to give appropriate attention to personnel needs in positions not directly related to safety. The staffing of four selected workforces -- Airports, Logistics, Human Resource Management, and Aviation Medicine -- had decreased 33 percent between FY 1980 and FY 1987, while workloads increased significantly. The review showed that reduced support staffing had already resulted in decreases in the quantity, quality, and timeliness of work accomplished.

The imbalance does not directly affect safety, because it existed among the non-safety-related workforces, while priority was being given to the safety-related workforces, such as air traffic controllers and maintenance personnel. The problem of imbalance still exists within FAA, and the agency will be facing additional personnel constraints in the coming years. However,

we believe the actions they are taking in response to our report will enable FAA to achieve and maintain an equitable balance among the workforces, and provide convincing support for requests for additional staff, when necessary.

Our audit efforts on non-safety-related workforces were coordinated with GAO to prevent duplication of audit effort. GAO reviewed safety-related workforces such as aviation safety inspectors and maintenance technicians. GAO's report cited the need for increases in staffing and improvements in position management. GAO found that an increase in safety inspector positions was warranted and that current shortages of maintenance staff are beginning to negatively affect equipment performance and other operational areas. GAO also found that FAA was in the process of redesigning and streamlining its training programs for these two workforces in order to reduce the long training period for new hires.

SENATOR LAUTENBERG: The previous Secretary of Transportation often complained that one of FAA's problems in moving the NAS Plan along more quickly was the procurement process it had to go through to fund equipment and find contractors. Has the Inspector General found anything that would support the former Secretary of Transportation's allegations? If so, please describe to the Committee what kinds of changes might be necessary to change the FAA's procurement process.

ANSWER: We have not conducted any specific reviews of the procurement process within FAA and its impact on the NAS Plan projects due to the GAO heavy audit involvement in the NAS Plan procurement process at the request of the Congress. GAO has issued a report and testified on the procurement process and NAS Plan delays. In the March 1987 report on Aviation Acquisition, GAO found that FAA was not following the Office of Management and Budget's Circular A-109 acquisition process. (The A-109 process originated from recommendations made by the Commission on Government Procurement to improve the process of acquiring major systems.) None of the 11 major NAS Plan projects were submitted for approval at either of the first two key decision points in the A-109 process. In GAO's opinion, closer adherence to A-109 principles could have reduced the incidences of cost increases and/or schedule delays experienced by all 11 projects. GAO concluded that FAA could reduce schedule delays in implementing other NAS Plan projects by following A-109 procedures. GAO also stated, in testimony on May 9, 1989, that FAA needs to strengthen its technology development and systems acquisition process. Because A-109 was not followed, GAO found that the $1.1 billion Microwave Landing System project began production before the number and location of sites was validated, benefits demonstrated, and system prototype tested. Major delays and other problems resulted. Also, the delay in implementing the $786 million Voice Switching and Control System illustrates FAA's underestimation of the complexity of what had to be done. Again, a result of FAA not following the A-109 process.

Three NAS Plan audits performed by us prior to GAO's congressionally mandated evaluations warned that FAA had not adequately completed necessary planning required for successful

implementation of the NAS Plan. These audits dealt with the (1) new enroute traffic control computers' design competition, (2) air traffic control advanced automation program, and (3) interfacility communication program. In each case, we cited the need for better acquisition and systems planning.

The problem is clearly not limited to FAA. The President's Blue Ribbon Commission on Defense Management points to numerous ways to improve the Defense acquisition process. They generally involve getting rid of layers of bureaucracy, streamlining processes and procedures, using short and unambiguous lines of communications, small staffs of highly competent people, and accountability.

My view is that A-109, implemented in an organization managed by those principles, would not be a cause of unnecessary delays.

SENATOR LAUTENBERG: In light of: (1) the recent scandals associated with DOD procurements; and (2) the extensive procurement activities under FAA's NAS Plan, including contracts with some of the same companies found at fault in the DOD scandals, what is the Inspector General doing to assure that the same kinds of unethical and illegal activities are not occurring in FAA's procurement program?

ANSWER: A number of initiatives have been undertaken by my office to identify the vulnerabilities in the Department's procurement process. Illustrations of individual programs are:

A) An OIG investigative/audit task force completed a vulnerability assessment of the Departmentwide procurement process early last fall, with special emphasis on FAA's procurement operations in relation to the NAS Plan. Drawing from its collective experience and expertise in the procurement fraud and internal control areas, we evaluated procurement strengths and weaknesses among the modal administrations and focused particularly on any vulnerabilities that existing practices might have to fraud or abuse. The primary objective was to ensure that sound procedures and controls are in place and strictly applied. Results of the assessment were then shared with senior management and the affected procurement personnel. These findings and recommendations will also serve as a basis for future audits and fraud prevention and detection surveys in the procurement area.

B) We have extended strong support to fraud awareness presentations which are being conducted throughout the Department. The DOT General Counsel, the Assistant Secretary for Administration--whose office handles procurement policy and oversight--and we all agreed that it was important to sensitize everyone involved in the procurement process to the fact that procurement fraud could exist. Participation by all three offices has also served as testimony that senior Department managers--not just the IG--are concerned about fraud prevention and detection and unethical business practices. It also carries the message that fraud or any sloppy procurement/business practices that may lead to fraud will not be tolerated. To date, nine seminars, attended by over 300 people, have been given at Headquarters, and a video tape has been produced for viewing by field personnel.

C) As a result of the vulnerability assessment, we have created and distributed "small purchase survey guides" to our Headquarters and field investigative offices. The guides will provide special agents with specific guidelines for conducting proactive investigations of the procurement process.

SENATOR LAUTENBERG: What is the status of the Inspector General's involvement with matching the national driver register with the pilot register to identify those pilots who have been convicted of alcohol or drug violations? How does your involvement compare to FAA's work in this area?

ANSWER: The OIG computer match project occurred in 1987 as a followup action to an OIG audit, which surveyed the National Driver Register (NDR). The audit determined there was significant noncompliance with the FAA requirement for pilot-applicants to report drug- and/or alcohol-related convictions on their medical certificate applications. Over 70 percent of the pilot-applicants who had these convictions failed to report them. Access to the NDR by OIG and FAA was limited by statute to statistical information; thus the names and identities of the pilots failing to disclose their convictions remained unknown. The OIG computer match project sought identities of noncompliant pilots by accessing law enforcement data bases, to which we had access.

Six thousand four hundred files were sent to FAA for review and appropriate administrative action. The FAA is examining these files and proceeding with administrative actions in numerous instances. Such action may range from simple review of a pilot's medical status to revocation proceedings for records falsification. We are pursuing the cases through the criminal justice system where U.S. Attorneys decide whether to pursue criminal prosecution based on the seriousness of the falsification. We and FAA are continually coordinating actions on respective cases. To date, 43 pilots have been indicted, and 18 pilots have been convicted or have pled guilty to charges against them.

FAA is also pursuing two enforcement policy actions which will follow the OIG project and establish policy for enforcing future acts of similar nondisclosure by pilot-applicants. The first FAA action involved publication of enforcement policy in the Federal Register to specifically establish procedural guidelines for remedial action to be taken against pilot-applicants identified in our match project.

The second FAA action involves a Notice of Proposed Rulemaking (NPRM), which has been published for comment in the Federal Register. The NPRM details the access to the NDR granted to FAA by a congressional amendment to the National Driver Act of 1982. The amendment allows the FAA to receive NDR information to identify pilots who failed to disclose their drug- or alcohol-related offenses to the FAA. The NPRM also establishes penalty action available to the FAA for nondisclosure by pilot-applicants.

Federal Highway Administration

SENATOR LAUTENBERG: The Inspector General's office has dedicated a fair amount of its resources into bid rigging investigations on highway contracts. Is this still a major activity for the Inspector General's office? If so, why? What is your estimate of recoveries made under the investigations you have conducted?

ANSWER: The detection and prevention of bid rigging activities in DOT-funded construction programs continue to be a priority effort with us. Bid rigging investigations are still one of our major activities because they continue to produce results, although at a much lower rate than we have previously experienced. This lessening of results can be attributed to our prior successes, from which our investigative methods and techniques became well known among those who would still engage in illegal bidding practices. This fiscal year, recoveries include over $8 million in restitution and $3 million in fines from contractors who were convicted of bid rigging. The total amount of recovery since 1978 is approximately $71 million in restitution and $50 million in fines.

SENATOR LAUTENBERG: In what area is bid rigging most prevalent? Is it in the bridge/structural steel area, concrete area, paving area, etc.?

ANSWER: I do not have a good feel for a cross section of bid rigging by area. Historically, the vast majority of our investigations into highway bid rigging involved hot mix asphalt. However, we are now looking beyond asphalt to areas such as ready-mix concrete, fencing, guardrails, and traffic signalization as spheres of possible collusive activity. We recently have had indictments returned against four corporations and eight individuals regarding antitrust activities in the highway chain link fencing industry.

United States Coast Guard

SENATOR LAUTENBERG: The Committee has serious concerns regarding the Coast Guard's acquisition program. Has the Inspector General's office looked at the acquisition program management of the Coast Guard? If so, please provide a summary of that investigation and the findings.

ANSWER: We have reviewed the Coast Guard's management practices in a number of large acquisition projects. We believe the Coast Guard needs to begin the process of determining requirements and specifications for major acquisitions sooner, make greater use of available standard and off-the-shelf designs for equipment and systems, and streamline the review and approval process within the Coast Guard to ensure that submittals to the Department are consistent and complete. The Coast Guard also needs to ensure that equipment has been adequately tested before making large quantity purchases.

A major problem with the Coast Guard's acquisition program has been the absence of a well-trained professional acquisition staff. The Coast Guard has taken steps to correct this problem.

Within the Office of Acquisition, a project manager is assigned for each major system. The project managers receive project management training at the Defense Systems Management College. Contracting officers receive training and serve in an apprentice role as contracting specialists prior to assignment to multi-million dollar contracts. The contracting officers need a good technical team consisting of legal, finance, contract administration, and engineering support. They have not had the level of support services available which we consider necessary on some of their major acquisition programs. At times, these staffs are enhanced only after the program is in trouble.

SENATOR LAUTENBERG: Another concern the Committee has had is the amount of contract modifications or work change orders that the Coast Guard itself has initiated on projects and equipment procurements, and wonder if that has been substantiated by the Inspector General's investigations.

ANSWER: Yes. Contract changes are often necessary to correct various types of problems with contract work statements and specifications. Change orders are used to add items that should have been included in the original contract. The personnel responsible for preparing work statements and specifications often do not have the benefit of thorough site reviews, engineering reports, and accurate engineering drawings.

We have looked at contract modifications in several major acquisitions. Our audits substantiate the Committee's concerns. On the 378-foot Cutter Fleet Renovation and Modernization (FRAM) project, many changes were needed because the Coast Guard did not have a standard set of "as built" drawings to give to the contractors. Cutter specifications and drawings to show modifications and repairs made over a 15-year period were not maintained on a current basis, and a good assessment of the work requirements was not made before a firm fixed-price contract was issued for the work. On the acquisition contract for 270-foot medium endurance cutters, similar problems existed with inadequate drawings, work statements, and specifications which created the need for many contract changes.

SENATOR LAUTENBERG: Do you believe that the Coast Guard seems to require what might be considered an excessive number of contract modifications once a contract has been signed?

ANSWER: Yes. These changes are made necessary to correct various types of problems with contract work statements and specifications. The work statements and specifications were frequently prepared without the benefit of thorough site reviews and engineering reports to facilitate detailed work descriptions and accurate engineering drawings. For example, on two 110-foot cutters, incomplete drawings and specifications were provided for the replacement of water tight doors and the modification of the hull, rudders, and propeller shafts. Also, many of the change orders added various structures and equipment which should have been included in the original contracts, such as modifications to crew berthing, head, galley, mess deck areas, and shower stalls.

SENATOR LAUTENBERG: What, specifically, did the Inspector

General find was the problem with the Coast Guard's FRAM Program?

ANSWER: Our audit was limited to a review of contract change orders. The audit identified four major problems. They were (i) the absence of financial limitations on change orders; (ii) the lack of a system to routinely identify and report major contract modifications to the project manager; (iii) the absence of accurate records showing available funds, commitments, and obligations; and (iv) the failure to comply with Departmental approval requirements for modifications valued at $500,000 or more.

One FRAM contractor was allowed to work on change orders for which financial limitations were not established. Also, adequate funds were neither committed nor obligated to cover the costs of these modifications. Consequently, the contractor had no limit on the costs that could be incurred for 30 contract modifications, and obligations for these modifications were understated by at least $24 million. The understatement of obligations also resulted in excess progress payments being made to the contractor.

Because a system to routinely identify and report major contract modifications to the project manager had not been developed, significant differences developed between vessels being renovated under the two FRAM contracts. Some of these differences were related to changes in basic cutter designs and operational capabilities. As a result, the FRAM objectives to improve standardization and to replace aging equipment will not be fully achieved.

One of the two Resident Inspection Offices did not keep accurate records of available funds, commitments, and obligations. Consequently, funding availability was misstated in the aggregate by $14.7 million, controls to preclude funding deficiencies were absent, and the accuracy of obligations established for each vessel was uncertain.

Coast Guard officials mistakenly thought a verbal agreement with Department officials provided relief from the dollar threshold of Departmental Order 4200.12B, which requires Departmental approvals for issuing contract modifications of $500,000 or more. Accordingly, without the required approvals, the Coast Guard issued 23 contract modifications totaling $185 million and six unpriced and minimum priced modifications estimated at $14 million.

SENATOR LAUTENBERG: What procedures or processes has the Coast Guard instituted to prevent similar situations (i.e., FRAM) from arising in the future?

ANSWER: The audit was focused on the handling of change orders under the FRAM contracts and did not evaluate the Coast Guard's entire procurement process. Although our audit recommendations were directed toward rectifying problems associated with the FRAM contracts, the actions taken on one recommendation should prevent similar situations from occurring on future acquisitions. We recommended that the Coast Guard establish not-to-exceed prices for contract modifications. In response to this recommendation, Coast Guard officials agreed to discontinue the use of zero and minimum priced contract

modifications and to establish not-to-exceed prices for all modifications. This action will decrease the likelihood of budget limitations being exceeded on future acquisitions. Also, additional procedures have been established specifically for the FRAM to ensure improved processing of contract changes. Coast Guard officials agreed to implement procedures so project management can monitor and assess the impact of contract changes on cutter operational capabilities and financial resources. Further, Resident Inspection Offices have been required to reconcile their accounting records to commitment and obligation documents and to the financial records maintained by their district finance offices. These reconciliations are to be documented for subsequent management review. Additionally, the Coast Guard has reached agreement with the Office of the Secretary of Transportation on the appropriate threshold for Departmental review of FRAM contract changes. Under this agreement, the Coast Guard is only required to obtain Departmental approval for modifications $500,000 or more per vessel. Prior to this agreement, Departmental approval was required for all modifications $500,000 or more, regardless of the number of vessels involved.

SENATOR LAUTENBERG: One of the problems that exists in the Coast Guard's management of large construction or procurement projects is the fact that the Coast Guard in its normal rotation schedule, often moves its personnel out before a contract or program is completed. Has the Inspector General been able to recommend changes in this area? Is there an opportunity to make changes in this regard?

ANSWER: Yes. In our audit of contract modifications at the Resident Inspection Office, Newport, Rhode Island, we found that many of the personnel assigned to administer and monitor the 270-foot cutter acquisition contract did not have a clear understanding of contract administration requirements because of inadequate training and unfamiliarity with the function of a Resident Inspection Office. Personnel were rotated periodically which contributed to errors affecting the continuity of the project. Because of the need to rotate Coast Guard personnel between sea duty and shore duty, it is difficult to establish hard and fast rules about the duration of project assignments. We recommended that the Coast Guard consider extending the tour of duty of personnel assigned to large construction or procurement projects. The Coast Guard realizes the value of maintaining the continuity of personnel with contract administration experience and has indicated it will continue to encourage that policy.

SENATOR LAUTENBERG: Has the Inspector General done work regarding the Coast Guard Falcon Jets and Dolphin short-range helicopters? If the Inspector General were to rate these two procurements regarding how they have been managed, the reliability of the product, how would you describe it?

ANSWER: We have issued four reports associated with the Falcon Jets performance. In March 1985, we issued a report on the Falcon Jet warranties and performance. Although actions were

taken by the Coast Guard and the contractor to reduce high failure rates, the Falcon Jets continued to perform poorly.

At the request of the House Government Information, Agriculture, and Justice Subcommittee, we conduct semi-annual reviews of the Falcon Jets performance. Management advisory reports on the status of the Falcon Jet performance were issued on September 28, 1988, and April 7, 1989. Overall performance goals were not met because of engine problems and the lack of spare parts.

In April 1989, the Subcommittee requested that we review the operational readiness of the nine Falcon Jet drug interceptors, and the nature and scope of the problems with the Dolphin helicopters, including the impact on its operational readiness and the costs involved to correct the Dolphin helicopter problems. The Falcon Jet drug interceptor report issued in June 1989 found the Coast Guard had adequate operational readiness procedures and deployment plans. During the 6 months reviewed, a Falcon Jet interceptor was available to respond to 64 requests for interdiction support. The report on the Dolphin helicopters will be issued by July 31, 1989.

Regarding the management of the procurements, the Coast Guard had done a good job with the use of warranties for the Falcon Jet. Warranty claims totaling more than $111 million for spare parts and components were accumulated as of January 1984. They have worked closely with Garrett Corporation, the engine manufacturer, to develop an acceptable delivery schedule for the repair/overhaul of engines, and to obtain the necessary spare parts. Contracts awarded for engine repair/overhaul and spare parts, and the commitments by the engine manufacturer for improvements, provides the Coast Guard with adequate resources to improve the performance of the Falcon Jet fleet. For the Dolphin, the success has not been the same even though the same coordination was done. There was no warranty provision included in the contract for the Dolphin helicopter. As you know, there is currently a law suit pending against the Dolphin engine manufacturer which strains the Coast Guard's relationship with the engine manufacturer in correcting the Dolphin problems.

The reliability of the Falcon Jet has not been good. During the 15-month period covered by the two management advisory reports, the Falcon Jets were not mission capable 46 percent of the time, in comparison to their goal of 29 percent. Excessive failures with engine and airframe components contributed to (i) a severe shortage of spare parts and components, (ii) an increased level of inspections and repairs, and (iii) a massive cannibalization of Falcon Jet parts amounting to over $33 million.

The Dolphin helicopter was not mission capable 43 percent of calendar year 1988, in comparison to a goal of 29 percent. The Dolphin's Lycoming LTS-101 engine continues to be a major problem. Coast Guard is looking at a potential replacement engine for this aircraft. The engine maintenance requirements are significantly greater than anticipated requiring four times more maintenance than originally projected and has caused a serious shortage of spare parts. The manufacturer rated the engines at 2,400 hours before requiring an overhaul. However,

they are now being overhauled at 600 hours and inspected every 60 hours. To keep the helicopter flying, the Coast Guard cannibalizes other Dolphins.

SENATOR LAUTENBERG: Has the Inspector General ever done audits on the Coast Guard on a district-by-district basis? If so, have these audits been done with the idea of matching actual expenditures in the district office versus what was budgeted in that district office?

ANSWER: Our audits typically review Coast Guard policies and implementation by the districts. The audits usually are not done with the idea of matching actual expenditures with the budget. The audit objectives generally concentrate on identifying ways to improve economy or efficiency of operations, determing whether programs are meeting their intended objectives, or assessing compliance with policies and procedures. However, in the fuel management audit, we compared budgets with actual fuel consumption for FYs 1985 and 1986. We found that the fuel budgets exceeded the actual consumption by $19.7 million and $26.5 million respectively. The excess funds were used for projects not subjected to the normal project approval process.

SENATOR LAUTENBERG: Does the Inspector General feel that the district offices of the Coast Guard have adequate cost management procedures or practices in place?

ANSWER: The adequacy of cost management procedures or practices in the Coast Guard varies by program. For example, our audit of active duty pay showed that the Coast Guard's district reporting units were generally effective in ensuring that entitlements due Coast Guard members were accurately paid. However, an audit of unaccompanied leased housing identified opportunities to substantially reduce costs through greater utilization of available government-owned housing. We found the Coast Guard was unnecessarily leasing houses for unaccompanied personnel because they did not have adequate controls to make maximum use of government-owned quarters. Using government-owned quarters could have eliminated 96 of the 150 leases at two districts and one maintenance and logistic command for an annual saving of $528,000.

SENATOR LAUTENBERG: Does the Coast Guard have adequate cost accounting methods in place, both at the regional headquarters and at the individual districts?

ANSWER: Except for the Superfund, the Coast Guard accounting system does not account for costs by program. It does account for costs by element of expense (object class) at the activity level. Although the annual budget shows funding requirements for each program, the budget estimates represent allocations to program areas based on programmatic statistics. Under Superfund activities, costs of oversight and cleanup duties for hazardous substance releases are recorded under interagency agreements. Our latest report on the Superfund, issued in September 1988, reported that controls over transactions were generally adequate to assure their reasonableness, allowability, and allocability.

SENATOR LAUTENBERG: Has the Inspector General audited the Coast Guard's activities in the drug interdiction area? In other words, has the Coast Guard expended the resources provided by Congress for the fight on drug interdiction?

ANSWER: We have performed several audits over the last two years that relate to various program aspects of Coast Guard resources dedicated to drug interdiction missions. We have not, however, determined whether or not the Coast Guard has spent the funds provided by Congress for drug interdiction, for that purpose.

SENATOR LAUTENBERG: Does the Coast Guard have an adequate cost accounting system in place so that they can accurately describe or estimate the amount of resources it expends in the drug interdiction area or any other program activity area like treaty enforcement, military readiness, etc.?

ANSWER: The Coast Guard accounting system does not account for costs on a program basis. The program by activity amounts shown in the prior year column of the Coast Guard budget are not found in the accounting records. The Coast Guard's accounting system provides data by element of expense (object class) by activity. We have not audited the accuracy of the data provided by program area or activity so we cannot comment on the accuracy of the amounts shown. We believe very strongly that a well founded programming and budgeting system should account for costs on both bases. The Coast Guard plans to include accounting by program and activity in its revised accounting system. The system is currently under development.

SENATOR LAUTENBERG: The Committee has provided specific funding amounts for Coast Guard's hazardous waste monitoring. The money was also to monitor ocean dumping. Do you feel the Coast Guard has adequate accounting or evaluation procedures in place that would accurately report to this Committee the amount of resources they spent in this area?

ANSWER: The information is not available from the Coast Guard accounting records because they do not maintain information by program. However, Coast Guard officials have stated that funding for hazardous waste monitoring and ocean dumping were used to provide research, development, and implementation for chemical and sewage waste monitoring for the New York Bight Area. They stated that the majority of the costs were for equipment and software development and that a summary of the costs could be obtained through an analysis of the procurement records. If the costs are concentrated as indicated, the Coast Guard should be able to provide a reasonably accurate report of the expenditures because of the uniqueness of the program activity, but not because of the accounting system.

SENATOR LAUTENBURG: In the past, the Customs Department and the Coast Guard have been at odds regarding the receipt of money generated by the sale of assets gathered through drug enforcement activities. Please describe the situation as it exists and whether or not the Coast Guard receives its fair share of funding from the forfeiture fund claims account.

ANSWER: In January 1989, we issued a report on Coast Guard's control over seized property and reimbursements from the forfeiture fund. At that time the Coast Guard was not fully successful in ensuring that they receive proper reimbursements of drug interdication expenses from the Customs Forfeiture Fund. Since 1982, the Coast Guard has submitted claims totaling $1.854 million to the Customs Service for reimbursement from the Forfeiture Fund. Reimbursements of $300,000 have been made. No payments have been made to the Coast Guard since 1986. To date the Coast Guard has been unsuccessful in collecting these claims.

In November 1988, the President signed the Anti-Drug Abuse Act of 1988 (P.L. 100-690). Section 7364 of the Act created a new Customs Forfeiture Fund and gives Coast Guard equal access to the fund to recover seizure and related expenses. The fund is available subject to appropriation. Expenditures from the fund shall not exceed $20 million for each fiscal year. Unobligated balances in excess of $15 million at the end of the fiscal year shall be deposited to the Treasury General Fund.

Budget Justification

SENATOR LAUTENBERG: Why does the Inspector General use the Defense Contract Audit Agency (DCAA) to perform some of its audit work?

ANSWER: The benefit of having DCAA perform audit work on our behalf is that they are onsite at the contractors' facilities, specialize in contract audit work, and are familiar with the contractors because of their Department of Defense involvement.

SENATOR LAUTENBERG: How much of the Inspector General's resources are spent in reimbursing the DCAA for the work it performs for the Inspector General?

ANSWER: During FY 1988, 5.5% (or $1.53 million) of our resources were used to reimburse DCAA. This number is deceptive, however, because during FY 1988 DCAA audit service was curtailed due to funding constraints. It is projected, based on modal estimates, that 8.9% (or $2.9 million) of our resources will be used to reimburse DCAA in FY 1990.

SENATOR LAUTENBERG: Are you satisfied with the work performed by the DCAA Auditors?

ANSWER: Yes, we are satisfied with the work DCAA performs for this office. On the whole, the DCAA auditors have done a good job of disclosing problems. However, they could provide the final incurred cost audits in a more timely manner so that DOT contracts could be closed out in a more timely manner.

SENATOR LAUTENBERG: Describe the increased staffing request for FY 1990 and the reasons for the personnel shifts that were also requested in the 1990 budget request.

ANSWER: The FY 1990 budget reflects a shift of five positions from the regional audit offices to the Office of ADP Audits and Technical Support and the addition of three new positions in the Office of Policy, Planning, and Resources.

We decided to realign resources between the field and the Office of ADP Audits and Technical Support in order to better match where the workload is moving in terms of the Department's programs. The Department has undertaken or is planning numerous major procurements of computer equipment, programs, and services. Our shift in resources will allow us to provide the type of oversight that procurements of this type require, in addition to providing computer assisted audit techniques and other support that is required in a high technology arena. Specifically, we are planning to use the five additional people to help us in reviewing such procurements as DOT-wide Office Automation Technology and Services (OATS) project (estimated at $854 million over 8 years); FAA's Computer Resource Nucleus (CORN) project (estimated at $600 million over 10 years); and Coast Guard's Standard Terminal Replacement Acquisition (costing up to $86 million over 8 years).

The three new positions within the Office of Policy, Planning, and Resources will be used for long-range planning and quality assurance programs. Two FTEs are requested for the long-range planning function. These resources will allow us to establish a framework for reviewing Departmental functions across modal administration lines as well as performing a continual, ongoing assessment of where the Department's resources are going to be spent. This information will allow us to perform qualitative and quantative analyses of where changes are occuring in the Department's programs which in turn will provide us with information on where we should invest resources on a proactive basis rather than a reactive basis, thereby helping us to establish audit and investigative priorities. The need for this function is particularly acute because of the lack of a comprehensive Departmental Planning, Programing, and Budgeting system. The third new position will be used for enhancing our quality assurance program. GAO's Government Auditing Standards and the Treadway Commission Report require that organizations conducting government audits have an appropriate internal quality control system in place. This person, independently of the team doing the initial work, will assure that work done by the auditors, investigators, and Assistant Inspectors General satisfactorily meets professional standards and produces reports of the highest quality. Compliance with such professional standards provides users of audit and investigative reports with greater assurance that the work was adequately performed and that the results can be relied on for making decisions and providing oversight.

SENATOR LAUTENBERG: Provide your request to the Office of the Secretary for FY 1990 funding, and the Office of the Secretary's request that was sent to OMB.

ANSWER: Our request to the Office of the Secretary was $33,015,000 and the request to OMB was $32,714,000.

SENATOR LAUTENBERG: Under the category "Other Services," the request has doubled from 1989's estimate of $1.4 million to a 1990 budget request of $2.9 million. Please explain why the costs in this area have doubled in one year, and why we need this increased DCAA support.

ANSWER: This $1.5 million increase in other services is attributable in total to an increase in DCAA costs--primarily a result of ordering additional audit services from DCAA. There has been a significant increase in requests for preaward audits by the various administrations within DOT. The other factor contributing to this increased cost is DCAA's decision to increase the scope of their audits, thus increasing the time and cost required to complete an audit.

DCAA cost estimates were computed utilizing the modes' estimates of the audit support required times the cost to conduct an audit.

SENATOR LAUTENBERG: In the rent, communication and utilities area, expenses have increased by 15% over the two years from $565,000 to $650,000. Please explain in more detail why this increase.

ANSWER: The increase in communications, utilities, and miscellaneous charges are a result of increased telephone charges of $55,000, increased mail charges of $17,000, and increased equipment rental of $13,000.

Increased telephone charges are a proportionate share of Departmental costs which have increased. In addition, FY 1988 telephone costs were lower that anticipated because of several requirements which the Department deferred until FY 1989 and FY 1990. The increased mail charges are a result of lower than anticipated costs for courier service in FY 1988 and equipment rental increases reflect the full year cost of equipment obtained mid-year in FY 1988. All categories of expenses have experienced inflation of 2.1 percent.

SENATOR LAUTENBURG: In the budget justification, you talk about a new quality assurance program. Please explain what you mean by "quality assurance program" and what impact you expect this to have on your audit work, audit performance, and quality of those audits.

ANSWER: The credibility and effectiveness of our audits and investigations is significantly affected by the quality of our work. It is a continuing concern to make sure that we provide accurate information to the people who use our audit and investigative products.

Quality assurance is the process of determining if our internal system of quality controls is functioning properly and is being fully used on audits and investigations. We have strengthened quality control in a number of areas since January 1988. Our operating procedures manual has been strengthened by adding specific internal control systems aimed, at improving and assuring quality products, as well as checklists to assure that these procedures were followed. Quality assurance is now performed by the audit and investigative staff. Checklists for supervisory review have been developed and are being used by our offices.

The responsibilities of the OIG Office of Policy and Procedures have been expanded to encompass performing independent evaluations to determine audit and investigative compliance with the quality assurance program. These reviews build on those done

by Headquarters offices and include on-site reviews of audit and investigative offices. Results of these evaluations are reported to me.

Through our quality assurance programs we will be able to identify any weaknesses in our operations and assure compliance with applicable auditing and investigative standards and operational policies and procedures.

SENATOR LAUTENBURG: What is the level of Inspector General resources being devoted to the President's Council on Integrity and Efficiency. What is the primary goal of this council, and how will it help the quality and the products produced by the Inspector General's office?

ANSWER: As a member of the President's Council on Integrity and Efficiency (PCIE), I attend PCIE meetings, participate in planning sessions, working groups, and other activities. My staff members may participate in PCIE audit, investigative, and other projects. We participate in those PCIE projects that are applicable to DOT programs and the level of resources we devote to these projects each year will vary depending on the applicability of the project to DOT. We estimate that during FYs 1988 and 1989 (through February 1989) we devoted 29 staff years to PCIE audit projects involving DOT programs. We devote less than one staff year to PCIE projects which do not have a direct involvement with DOT programs.

The PCIE was established by Executive Order in March 1981. It is the main vehicle by which the Inspectors General and other PCIE members work cooperatively to address management improvement and the prevention and detection of fraud, waste, and abuse.

The PCIE has enabled the Inspectors General to achieve more together than any one of them could achieve alone by focusing attention and corrective action on Governmentwide issues. For example, the PCIE audit of user fees presented a comprehensive picture of the potential for budget enhancement through user charges. The PCIE project on loan guarantees led to important changes by OMB in its Circular guidance. The PCIE has highlighted the role of the Inspector General in reducing fraud, waste, and abuse and has given additional emphasis to fraud prevention and audit responsibilities. The PCIE also works to ensure high standards throughout the Inspector General community. PCIE efforts in this area include promoting effective use of investigative techniques and civil fraud remedies, evaluating auditing and accounting standards affecting the Inspector General community, and maintaining trained and qualified professional staff.

SENATOR LAUTENBERG: In the budget justification, you state that the Audit and Investigative Computer Integration System (AICIS) is going to dovetail the Office Automation Technology and Services (OATS) Project that has been under development within the Office of the Secretary. Please explain how these two systems will relate to each other and the involvement of the Inspector General in putting together the OATS Project?

ANSWER: AICIS is a microcomputer and minicomputer hardware/software procurement. We plan to fulfill the

microcomputer-related portion of AICIS requirements through the Department's OATS competitive procurement. We want to standardize on the same microcomputers and related software which the rest of the Department uses, and OATS will satisfy this objective. In addition, this approach will enable us to realize substantial savings from (1) the economies of scale associated with competitively procuring large quantities of equipment and software and (2) avoiding much of the administrative cost associated with conducting a major procurement of this sort.

We have had no involvement with the development of the OATS project. That development has been led by FAA in conjunction with the Office of the Secretary. We have maintained our audit/investigative independence of the OATS development process, which is important since we plan to conduct an audit of the OATS post-award implementation process in FY 1990.

SENATOR LAUTENBERG: What are the costs associated with the computer integration system?

ANSWER: AICIS will cost a total of $2.7 million over its five-year implementation period. The following table provides a breakout of the major cost categories by fiscal year.

TOTAL AICIS COSTS BY FISCAL YEAR

(Dollar Amounts in Thousands)

	FY 1990	FY 1991	FY 1992	FY 1993	FY 1994	TOTAL
Hardware purchases:						
Microcomputers	$200	$190	$230	$300	$100	$1,020
Minicomputer upgrades	130	160	50	210	250	800
Local Area Networks (LAN)	20	80	150	15	65	330
Subtotal	$350	$430	$430	$525	$415	$2,150
Software purchases:						
Microcomputer/LAN	$ 20	$ 80	$150	$ 5	$ 65	$320
Minicomputer	-	50	-	50	100	200
Office Automation and Integration	30	-	-	-	-	30
Subtotal	$ 50	$130	$150	$ 55	$165	$ 550
TOTAL	$400	$560	$580	$580	$580	$2,700

SENATOR LAUTENBERG: Please update the chart found on page 664 of Senate Report 100-853, Part 2 regarding equipment, long-distance phone, FTS and penalty mail costs.

ANSWER:

	1986 Budget	1986 Actual	1987 Budget	1987 Actual	1988 Budget	1988 Actual	1989 Budget	1990 Budget
Equipment	$ 50,000	$ 45,275	$ 56,000	$ 41,285	$ 65,000	$ 92,655	$ 96,000	$ 106,000
Local Phone	125,000	170,124	143,000	150,830	251,000	139,167	164,000	175,000
Long Distance	25,000	28,481	17,000	17,159	18,000	27,245	30,000	32,000
FTS	170,000	180,524	214,000	209,288	164,000	257,321	265,000	272,000
Penalty Mail	30,000	30,028	39,000	40,024	65,000	47,716	65,000	65,000
Total	$400,000	$454,432	$469,000	$458,586	$563,000	$564,104	$620,000	$650,000

SENATOR LAUTENBERG: For the record, provide an analysis of the nature of the "hotline" complaints that have been received by the Inspector General's office, similar to the chart found on pages 682 and 683 of last year's Senate Hearing Report 100-753, Part 2.

ANSWER: We segregate hotline complaints into several general categories. In FY 1988, the hotline opened 271 cases and, as of May 31, 1989, 188 total hotline cases had been opened for FY 1989.

The following is a breakdown of categories of cases opened as a result of a hotline complaint:

	FY 1988	FY 1989 through May 31
Time and Attendance (falsified records; leave and overtime abuse)	16	17
Contracts (mischarging, favoritism, etc.)	41	22
Grants (majority involving Disadvantaged Business Enterprise concerns)	65	32
Personnel Matters (prohibited practices, irregularities, etc.)	41	10
Regulatory (safety and general rules, violations)	30	31
Travel (false claims, waste of travel funds)	13	12
Property (misuse, general waste)	48	53
Procurement (wasteful practices	1	3
Mismanagement (wasteful activities and practices)	16	8

RELATED AGENCIES

ARCHITECTURAL AND TRANSPORTATION BARRIERS COMPLIANCE BOARD

Mr. Chairman, it is our pleasure to present to the Subcommittee the Architectural and Transportation Barriers Compliance Board's Fiscal Year 1990 budget request in the amount of $2,000,000. This funding is necessary to enable the Board to continue pursuing its initiatives which are specifically designed to provide increased accessibility, and in turn, increased independence for over 36 million Americans with disabilities.

In Fiscal Year 1988, the Board achieved:

- Improved management and administrative structure of the agency.
- Exemplary progress in reducing and ensuring the future reduction of the backlog of complaints filed with the agency. For the first time in its recordkeeping history, the agency has closed more cases than it opened in a fiscal year.
- Adoption and implementation of a Five-Year Workplan and identification of the appropriate resources necessary to implement the initiatives embodied in the plan.
- Publication of a final rule establishing minimum guidelines for accessible leased facilities.
- Incorporation of the **American National Standards Institute** (ANSI) A-117.1-1986 standard (with certain modifications) into the **Minimum Guidelines and Requirements for Accessible Design** (**MGRAD**) to ensure consistency with standards for accessible design in the private sector and incorporation of **the Uniform Federal Accessibiility Standards** (**UFAS**) provisions on special facilities, thereby completing all reserved sections of MGRAD.
- Adoption and implementation of a research strategy which provides for a periodic review of the MGRAD that coincides with the ANSI mandatory review cycle and focuses on specific research topics in the intervening years.
- Coordination of federally-sponsored research on accessible design and a commitment to require proper coordination of our efforts in the future.
- Development and preliminary implementation of a comprehensive public education and information

plan to enhance the visibility of the ATBCB and to improve communications with the public and private sectors and facilitate the appropriate dissemination of important information on the removal of barriers.

- o Outreach to the public to ensure that Board initiatives reflect the needs of those affected by ATBCB policies and programs.

- o Outreach to the Federal sector to promote knowledge of the ATBCB and its mission and to increase cooperation to achieve amicable resolution of complaints filed with the Board.

- o Active participation on the Department of Transportation's regulatory negotiation panel to implement the Air Carrier Access Act of 1986.

- o Continuing active cooperation with the Council of American Building Officials, the private sector organization with responsibility for interpreting ANSI A117.1, to develop consistent interpre-tations of technical requirements.

In Fiscal Year 1990, with the level of funding requested, the Board can carry out its responsibilities through a variety of efforts which include compliance and enforcement, research, technical assistance, legal remedies, public education, and management improvement initiatives. The Board has developed carefully planned program actions that strategically target resources on critical activities necessary to fulfill its legislative mandates. To this end, the Board has established the following Fiscal Year 1990 initiatives.

(1) Strive for an ultimate state-of-the-art accessibility standards document through appropriate research initiatives.

(2) Increase the public's knowledge regarding accessibility topics through planned educational programs and activities which incorporate a comprehensive approach for developing technical proficiency and consumer advocacy.

(3) Further refine the Board's compliance and enforcement procedures to ensure the prompt and amicable resolution of accessibility complaints filed with the agency.

(4) Continue to pursue and implement appropriate management improvements.

The ATBCB's Fiscal Year 1990 budget represents a continuation of the Board's efforts to achieve its programmatic and administrative goals while carefully focusing its resources. It addresses urgent priorities designed to promote access. The highest priorities are to continue viable programs of research, technical assistance, public education, and compliance and enforcement.

QUESTIONS SUBMITTED BY SENATOR LAUTENBERG

FISCAL YEAR 1989 OBLIGATIONS

SENATOR LAUTENBERG: Of the $1,890,154 appropriated for Fiscal Year 1989, how much remains to be obligated and will all funds be obligated by the end of the Fiscal Year?

ANSWER: Approximately $710,971 remains to be obligated. We anticipate that all of these funds will be obligated by the end of the fiscal year.

SENATOR LAUTENBERG: For the record, please prepare a table showing unobligated balances lapsing for each of the prior 5 years.

ANSWER: The following table shows unobligated balances lapsing for each of the prior 5 fiscal years.

Fiscal Year	Unobligated Balances
1988	$38,424
1987	$ 2,547
1986	$ 3,295
1985	$ 4,355
1984	$ 2,874

1989 BASE

SENATOR LAUTENBERG: On page 3, how was the column of figures headed "1989 Base" calculated? Is this the 1989 appropriated level? Please prepare, by object class and program area, an estimate of the cost to conduct the 1989 program in 1990 -- in other words, what would it take in 1990 funding to cover expected cost increases in pay, space, telecommunications, etc.?

ANSWER: The base represents the ATBCB's FY 1989 revised operating plan approved at the Board's November 1988 meeting. Since the Board's appropriated budget for FY 1989 was $109,846 less than its original request of $2,000,000, reductions were necessary to conform the ATBCB's operating plan to the appropriated level of $1,890,154. Accordingly, adjustments were made in amounts available for personnel and research/technical assistance projects.

The ATBCB's estimate, by object class, of funds necessary to conduct the 1989 program in FY 1990 is the same as that presented in the budget justification. These amounts are listed below for your convenience.

Personnel Compensation	$1,267,000
Full-time permanent positions	$ 948,000
Positions other than permanent	126,000
Other personnel compensation	14,000
Special personnel services	4,000
Personnel benefits	175,000
Travel	103,000
Rental Payments to GSA	116,000
Communications, utilities and telecommunications	61,000
Printing and reproduction	39,000
Other Services	
Research/technical assistance	252,000
Administrative	142,000

Supplies	15,000
Equipment	5,000

SENATOR LAUTENBERG: For the record, please provide a summary of the ATBCB's budget request to OMB and how that compares to the ATBCB's request to Congress.

ANSWER: The ATBCB's budget request to OMB and to Congress was in the amount of $2,000,000.

RESEARCH AND TECHNICAL ASSISTANCE

SENATOR LAUTENBERG: What accounts for the expected increase from the Fiscal Year 1989 level in funding needed for research and technical assistance activities? What specific research programs are scheduled for an increase?

ANSWER: The $252,000 in FY 1990 is necessary to restore a viable level of funding to the agency's research and technical assistance programs, enabling the Board to continue implementing its 5-year research plan as set forth below.

The Board is currently in the second year of a technical research strategy which provides for a periodic review of the **Minimum Guidelines and Requirements for Accessible Design** (MGRAD) and the Uniform Federal Accessibility Standards (UFAS) that coincides with the American National Standards Institute (ANSI) mandatory review cycle. Major objectives of the strategy are to increase consistency between Federal and private sector standards and to ensure that MGRAD reflects the latest developments in accessible design. This strategy, adopted by the Board at its March 1988 meeting, incorporates a 5-year MGRAD review cycle with intervening focus years. Years one and three will focus on MGRAD review and follow up research, and the intervening years (years 2, 4, and 5) will focus on topics such as housing and transportation, those areas deemed most important in terms of addressing the needs of persons with disabilities. The status of the Board's projects in these areas are as follows:

FY 1988	Year 1	MGRAD/UFAS Review Project, Auditory Alarms (on-going)
FY 1989	Year 2	Accessible Housing Focus Year (in contracting process) • Housing Accessibility Information System • Fire-Safe Modular Accessible House Project • UFAS Retrofit Manual
FY 1990	Year 3	MGRAD/UFAS follow-up research projects (projects generated by MGRAD/UFAS Review Project in year 1 - project selection 8/89)
FY 1991	Year 4	Transportation Focus Year (projects under development)
FY 1992	Year 5	Transportation Focus Year (projects under development)

In Fiscal Year 1988 the Board funded and targeted for completion late in Fiscal Year 1989 the MGRAD/UFAS Review Project. The research will provide a comprehensive review of MGRAD/UFAS provisions, including scoping/application and technical requirements, in light of developments in accessibility codes and standards, environmental research, post-occupancy evaluations, and new technology. Where justified by the data, recommendations will be made for revisions to the documents. The project will also identify unresolved issues or questions remaining and develop a list of recommended research projects to be conducted in FY 1990, the results of which will guide the Board in developing state-of-the-art specifications for improving MGRAD/UFAS scoping or technical provisions.

Since the Board has recently incorporated certain provisions of ANSI A117.1-1986 (with amendments) into MGRAD, the private sector standard commonly used throughout the country, we expect the major differences and most controversial issues will arise in the areas of scoping and application provisions. These are sections where little previous research has been conducted and involve areas of great variation and often controversy at both the state and Federal level. In addition, since many states modify the ANSI standard as does the Federal Government, major differences occur in some areas including requirements for toilet stalls, overhead clearances for accessible parking spaces or loading zones, and requirements for detectable surfaces.

In Fiscal Year 1990, the Board proposes to initiate follow-up research projects on issues and recommendations resulting from this review project. We expect projects to focus on the above issues and other identified issues to resolve specific questions not previously addressed by Board research or in areas where technology has advanced subsequent to previous agency research.

The results of the 1988 Review Project and the follow-up research projects proposed for Fiscal Year 1990 will provide the necessary information for the Board to revise the MGRAD standards and to fully participate in the ANSI review cycle which begins in 1991. The Board will also work with the Department of Defense, the Department of Housing and Urban Development, the General Services Administration, and the United States Postal Service to revise and update the UFAS.

SENATOR LAUTENBERG: What is the current status of implementation of the Minimum Guidelines and Requirements for Accessible Design (MGRAD)? What federal facilities are, as of yet, uncovered?

ANSWER: The publication in the Federal Register of two final rules amending the Agency's Minimum Guidelines and Requirements for Accessible Design created differences between MGRAD and the Uniform Federal Accessibility Standards (UFAS).

The final rule incorporating guidelines for leased facilities was published on September 14, 1988 and the final rule incorporating ANSI A117.1-1986 and UFAS provisions was published on February 3, 1989. With the publication of these revisions, previously reserved sections of MGRAD are complete. Because MGRAD serves as a basis for the UFAS, which are developed and changed only by the standard-setting agencies, it is now necessary for the four standard-setting agencies to make revisions to UFAS in order to be in compliance with the MGRAD.

We have asked each of the four standard-setting agencies, Department of Housing and Urban Development (HUD), General Services Administration (GSA), Department of Defense (DoD), and the U. S. Postal Service (USPS), to appoint representatives who, along with ATBCB staff representatives, would participate in a task group to make such necessary revisions. We have already held one meeting with liaison staff members from the standard-setting agencies to discuss the formation of such a working group and are confident that we have support from each agency.

The Board's jurisdiction extends to those federally-funded buildings which are subject to the Architectural Barriers Act. The Architectural Barriers Act covers most federally-funded buildings. The Architectural Barriers Act does not include federally funded buildings which were: (1) designed, constructed, or altered by or on behalf of the United States prior to the effective date of any standards issued under the Act (September 2, 1969); or (2) financed under a Federal grant or loan program such as the Federal revenue sharing program which does not authorize any standards to be set for the design, construction, or alteration of buildings funded under such program. The Architectural Barriers Act also excludes: (1) buildings that are privately owned residential facilities not leased by the Federal Government for subsidized housing programs; and (2) buildings in military installations designed and constructed primarily for use by able-bodied military personnel.

SENATOR LAUTENBERG: What is the expected outcome of the ATBCB effort on visual signals? Will they be incorporated into the MGRAD?

ANSWER: The Visual Signals Project conducted human factors research on the reaction time and other responses of persons with hearing losses to visual alarms and alarm systems. Recommendations for MGRAD revisions and/or advisory standards on visual alarms were a product of this research. The project also developed draft technical assistance materials which will be published by the Board in FY 1989. The technical assistance material is currently being distributed in draft form while the document is being processed for publication in Fall 1989. Since this project was completed in Fall 1988 immediately after the Board approved for publication its most recent MGRAD revisions (the final rule incorporating guidelines for leased facilities was published on September 14, 1988 and the final rule incorporating ANSI A117.1-1986 and UFAS provisions was published on February 3, 1989, thus completing all previously reserved sections of MGRAD), it is anticipated that the recommendations for revisions on visual signal requirements will be considered along with those from other recent projects at the conclusion of the current MGRAD/UFAS Review Project described in question 5 above.

SENATOR LAUTENBERG: What cooperative research efforts with other Federal agencies were undertaken in Fiscal Year 1989 and what projects are planned for Fiscal Year 1990?

ANSWER: Because the ATBCB is the only government agency dedicated exclusively to increasing the accessibility of public buildings and facilities, this year, as in the past, the Board is working closely with the National Institute on Disability and Rehabilitation Research (NIDRR) and other federal agencies to coordinate, prioritize and focus research efforts in the areas of accessibility. The Board has recently completed a cooperative project with NIDRR to review the research of agencies participating

on the Interagency Committee on Disability Research (ICDR) to further efforts to identify and apply research results relevant to the Minimum Guidelines and Requirements for Accessible Design (MGRAD) and to stimulate further research in such areas within and outside the federal government. As a part of this project through a cooperative agreement with NIDRR, the Board, in late fiscal 1988, edited and printed "Toward an Accessible Environment: Effective Research", a pamphlet describing several research projects on accessibility sponsored by the federal government. The research projects cited were selected from more than 90 accessibility studies as especially noteworthy. The pamphlet describes each project which was selected for recognition, lists its major findings, and provides sources for further information on the subject. This publication is intended to inform researchers on accessibility issues needing further study on the general public on the state-of-the-art in design for all people. This year (Fiscal Year 1989) the Board is disseminating copies to a variety of organizations, institutions and individuals. Also, NIDRR has recently published a request for proposals (RFP) for a new research and training center, which will focus on accessible housing. The RFP requires that the recipient work closely with the Board in carrying out its programs.

The ATBCB will also continue its leadership and participation in the Interagency Committee on Disability Research throughout fiscal 1990. The Board believes that the ICDR Task Group on Accessibility will significantly advance interagency cooperation.

Very recently, the Board entered into a jointly sponsored demonstration project with the U.S. Fire Administration to show how fire safety and accessibility can be combined in a cost effective and attractive manner. Work in this project will identify the costs of such features in relation to the total cost of the construction in both modular and site build homes. The project will also demonstrate state-of-the-art design solutions for fire-safety and accessibility needs of households that include persons with various types of disabilities. Information gathered and prepared from this project is expected to have widespread value for distribution to design and construction professionals, consumers and the general public. Research and reporting of this one-year project will continue through fiscal 1990.

SENATOR LAUTENBERG: What is the appropriate unit of measure of success for ATBCB studies? For example, if a technical paper is prepared, does ATBCB review how many requests or inquiries you received to determine if that was the appropriate topic to address.

ANSWER: There are many ways in which to measure the success of the ATBCB's Research and Technical Programs. The majority of the Board's projects are conducted with multiple goals which generally include advancing the state-of-the-art relative to a specific issue such as visual alarms; developing recommendations for changes to the MGRAD and other standards; developing reports and other scholarly materials; and developing information and materials for distribution to professionals and consumers in support of the agency's technical assistance mandate. We feel there is no single measure appropriate to all projects.

The ATBCB, however, has initiated a new tracking procedure in December 1988 so that it may identify not only the nature of the request but also tell us something about the requestor, i.e., whether the person is associated with another government agency, a

member of the design/construction industry, or an individual in need of information.

The Board receives upward of four thousand inquiries each year for information, technical assistance and publications by letter, telephone or personal contact. Requests have been received for information on architectural design and detailing; accessible housing requirements; materials and methods of construction; dealing with the constraints of existing construction; public transportation facilities and systems; when to use UFAS versus local or state accessibility codes; the differences between the requirements under the Architectural Barriers Act and those under section 504 of the Rehabilitation Act; and the function and mission of the Board itself.

By categorizing and totaling the various types of requests, the Board will be able to determine not only the "popularity" of completed projects, but will also be able to identify those subject areas needing study or resolution and use this information as a basis for the determination of the appropriateness of new projects.

SENATOR LAUTENBERG: What is the current status of ATBCB efforts to assist persons in gaining access to federally occupied and funded buildings and facilities? What are the next major issues that the ATBCB should address? If the ATBCB were to prepare a 5 year plan, what would be its major objectives?

ANSWER: Through its compliance and enforcement, technical assistance, research and public education efforts, the ATBCB has had a considerable impact in terms of increased accessibility in Federally occupied and funded buildings and facilities for persons with disabilities. However, there are several major issues that remain to be addressed. These include accessibility of mass public transportation, communications accessibility for people who are deaf or hearing impaired, and, accessible and affordable housing for persons with mobility impairments. Further, the Board has found, through contacts with the public, that there appears to be a widespread lack of compliance with existing Federal, state and local standards. The lack of compliance stems from an education gap which we feel can be alleviated through greater outreach and educational initiatives.

The major objectives of the Board's current 5 year plan specifically focuses on these issues. For instance, in FY 1990, the Board will devote the majority of its available research and technical assistance funds to a review and update of the Minimum Guidelines and to provide input to the update of the ANSI standard.

FY 1991-92 have been designated as "focus years" for transportation projects. The potential projects include a substantial training program on UFAS requirements, creation of a computerized database, development of advisory guidelines for public conveyances, follow-up on the mobility aid stowage project, and research on wheelchair-transit compatibility.

Two of the projects proposed for the transportation "focus" years, the database and training, can be scaled to fit available Object Class 25 funds: additional funds would allow more ambitious projects. Also, it is anticipated that there may be insufficient funds to pursue all of the smaller projects outlined for discussion by the Technical Programs Committee; additional funds would most likely be used to fund more of these projects.

The Board is committed to continuing the focus years and conducting the projects as outlined in the first five-year cycle above. In making this decision, the Board took into consideration concerns expressed at the Board's public forum, concerns expressed by Congress when ATBCB was asked to prepare special reports on these topics areas, the Agencies responsibilities in these areas as established in our enabling legislation as well as the numerous requests for information and technical assistance in these areas which the Board receives each year.

Focus topics for outyears (those beyond FY 1993) may indeed change over time if the Board becomes aware of more pressing needs in other areas.

AIR CARRIER ACCESS

SENATOR LAUTENBERG: What is the Board's view of the progress being made by the Department of Transportation in implementing the Air Carrier Access Act?

ANSWER: As you are aware, the Board participated on the Regulatory Negotiation Panel assembled by the Department of Transportation (DOT) to help it formulate proposed regulations. Even though that process slowed development of a proposed rule, and the Panel disbanded before a complete proposal was formulated, the Board believes the regulatory negotiation process will ultimately lead to a better rule. The Board furnished extensive comments on the Notice of Proposed Rulemaking (NPRM) which urged DOT to adopt those provisions on which the Panel was in agreement, as well as suggesting changes in areas where agreement was not reached.

One area where substantial disagreement remained was on the subject of exit row seating on which the Federal Aviation Administration (FAA) has issued a separate NPRM. As a result, DOT has announced its intention to postpone action on the Air Carrier Access regulations until after the comments on the FAA NPRM have been analyzed. While the Board is anxious to have regulations for the Air Carrier Access Act promulgated with all due speed, it makes sense to complete the FAA rulemaking so that consistent rules can be implemented. We intend to closely monitor progress on these rules, consistent with section 14 of the Civil Aeronautics Board Sunset Act of 1984, in hopes that a final rule is forthcoming as soon as possible.

SENATOR LAUTENBERG: What new rules, if any, have been published? What other rules remain to be published?

ANSWER: The Notice of Proposed Rulemaking (NPRM) for the Air Carrier Access Act was published in the Federal Register on June 22, 1988 (53 Fed Reg 23574) with a 90-day comment period. On September 23, 1988 DOT published a notice (53 Fed Reg 36997) extending the deadline for comments until December 19, 1988. The Federal Aviation Administration published the NPRM on exit row seating in the Federal Register on March 13, 1989 (54 Fed Reg 10484) with a comment period ending June 12, 1989.

STAFF TRAVEL

SENATOR LAUTENBERG: Please update for Fiscal Years 1987, 1988, and 1989 to date data on staff travel.

ANSWER: The following is the requested data regarding staff travel for Fiscal Years 1988 and 1989. There are no changes to the data previously provided for Fiscal Year 1987. Data provided for Fiscal Year 1988 updates previously provided information.

FY 1988 Site	Purpose
Knoxville, TN	Architectural Barriers Act Seminar
New York, NY	Participate on jury of "Design America Accessible" campaign
Columbus, OH	Presentation at BOCA annual meeting
White Plains, NY	Technical Assistance Seminar
Chicago, IL	Participate at annual meeting of American Federation for the Blind
Detroit, MI	Seminar on UFAS regarding signage requirements
Binghamton, NY	Complaint investigation
Philadelphia, PA	Complaint litigation

FY 1989 Site	Purpose
San Francisco, CA	Board Meeting and Public Forum
Charleston, SC	American Institute of Architects
New York, NY	National Institute for Architectural Education
Philadelphia, PA	SEPTA/UMTA Investigations
Philadelphia, PA	Interior Conference and Exposition for Historic Buildings
New Orleans, LA	Board Meeting and Public Forum
Chicago, Il	ACSA Conference Annual Meeting
Birmingham, AL	Southeastern Governor's Conference on Accessibility
Hartford, CT	Fair Housing Conference
Cleveland, Ohio	Housing Resource Center Conference
San Francisco, CA	National Park Service Training
Orlando, FL	Panel Presentation - "Re-examining E&D Access"
Indianapolis, IN	Presentation at Urban Horizons Conference for Partners for Livable Places
Tampa, FL	Joint Meeting: President's Committee on Employment of Persons With Disabilities; Board Meeting; and, Public Forum

SENATOR LAUTENBERG: The ATBCB justification, on page 9, states that "the slight increases in some areas are due to increased costs -the level of service, which is necessary to support board operations, has essentially remained the same." Yet, on page 3, the table shows that travel will be increased from $82,000 to $103,000 -- an increase of $21,000, or about 25 percent. How should these items be reconciled? Why is travel to increase so significantly?

How was the increase calculated? Who will travel with the increased $21,000?

ANSWER: The slight increase refers to increases in travel and administrative contracts. The ATBCB receives numerous requests each year to provide technical assistance and training on UFAS for a wide variety of audiences. We have found, through the many comments received at our public forums, that there is a lack of design experience and knowledge, in the public and Federal sectors, in the design and construction of cost-efficient, aesthetically pleasing, accessible structures and facilities. Additionally travel funds will enable us to fulfill this unmet need. Increased funding for administrative contracts will enable the Board to refine and expand projects to develop and disseminate design information. These projects include planning for a 1991 conference on accessibility, federal compliance consortium, revision of technical publications, articles for trade journals, an expanded newsletter, and increased public outreach activities. These funds will also enable the Board to continue its public forums in FY 1990. Finally, additional funds are requested to enable the Board to implement its mandated drug testing program.

The agency's estimate for travel assumes that in FY 1990 (1) all public Board members (including attendants for disabled members) will attend the committee and board meetings planned (approximate total cost $90,000, which includes staff travel to out-of-town meetings); (2) technical staff will continue providing on-site technical assistance (training on accessibility standards) to those agencies requesting that service (approximate total cost $13,000); and, (3) the Board will continue its practice of holding public forums at each of its out-of-town meetings to solicit public input with regard to Board proposed policies (see approximate cost specified above).

The increase was calculated based on an average cost per meeting for Board meetings and an average cost per trip for staff travel. The figures used were derived from existing actual and projected data adjusted for inflation.

BOARD OF DIRECTORS

SENATOR LAUTENBERG: Please update the data in last year's hearing record regarding Board membership.

ANSWER: The following is the Board membership list and terms of service.

Public Board Members	Term of Service
Howard Adams	04/08/87 - 12/03/89
Robert Brostrom	03/12/86 - 12/03/88
(second term)	12/07/88 - 12/03/91
Stephen Bull	03/08/88 - 12/03/90
Susan Castle	12/07/88 - 12/03/91
Gene Chappie	04/08/87 - 12/03/89
Robert Cothren	04/08/87 - 12/03/88
(second term)	01/18/89 - 12/03/91
Eugene Johnson	03/08/88 - 12/03/90
Robert Kelly	04/08/87 - 12/03/89
William McCabe	02/22/88 - 12/03/90
Howard Stone	12/07/88 - 12/03/91
Glen Stotler	02/22/88 - 12/03/90

William J. Tangye	07/01/85 - 12/03/86
(second term)	04/08/87 - 12/03/89

Federal Board Members

Department of Defense
Mr. Grant S. Green, Jr.
Assistant Secretary for Force Management and Personnel

Department of Education
Not designated at this time

General Services Administration
Mr. David J. Godfrey
Deputy Administrator

Department of Health and Human Services
Not designated at this time

Department of Housing and Urban Development
Mr. Thomas D. Casey
Acting Assistant Secretary for Fair Housing and Equal Opportunity

Department of the Interior
Mr. Rick Ventura
Assistant Secretary for Policy, Budget, and Administration

Department of Justice
Not designated at this time

Department of Labor
Not designated at this time

Department of Transportation
Mr. Gregory S. Dole
Assistant Secretary for Policy and International Affairs

United States Postal Service
Mr. Stanley W. Smith
Assistant Postmaster General, Facilities Department

Department of Veterans Affairs
Not designated at this time

SENATOR LAUTENBERG: Are there any vacancies remaining to be filled?

ANSWER: At this time, all public member vacancies have been filled. We anticipate receiving word as to Federal member designees as soon as the Senate confirms pending appointments late in June.

SENATOR LAUTENBERG: How much of the Board's total budget for Fiscal Year 1990 is associated with Board meetings, i.e. per diem, travel and compensation costs? How much was associated in this manner in 1988? 1989?

ANSWER: In Fiscal Year 1990, approximately four percent (4%) of the Board's total budget request is associated with Board meetings (staff and public Board Member and attendant per diem,

travel and compensation costs). For FY 1988, approximately three percent (3%) was spent in this manner. In FY 1989 we anticipate spending approximately four percent (4%) of the overall budget in this manner.

SENATOR LAUTENBERG: Please update the attendance rate at Board meetings for Fiscal Year 1988 and 1989 to date.

ANSWER: The following is the attendance rate at Board meetings for Fiscal Years 1988 and 1989 to date.

Fiscal Year 1988	Members Present
November	13
January	10
March	18
May	13
July	15
October	14
November	15
Fiscal Year 1989	
January	11
March	13
May	12

PERSONNEL COMPENSATION

SENATOR LAUTENBERG: What is the basis for the $2,000 increase in the average salary from Fiscal Years 1987 to 1988 and 1988 to 1989? Is this expected to continue in the outyears? Is it solely related to "grade creep"?

ANSWER: The increase is based upon promotions, within-grade increases for those employees covered under the General Schedule (GS); merit increases for employees covered under the Performance Management and Recognition System (PMRS) as well as cost of living adjustments. Accordingly, we expect salaries to continue to increase in the outyears. There has been a minimal increase in average grade at the ATBCB; therefore, the increase is not related solely to that factor.

SENATOR LAUTENBERG: What percentage of the Board's staff is covered by the FERS? (Provide the absolute number of personnel, the percentage and the dollar costs for Fiscal Years 1988 and 1989).

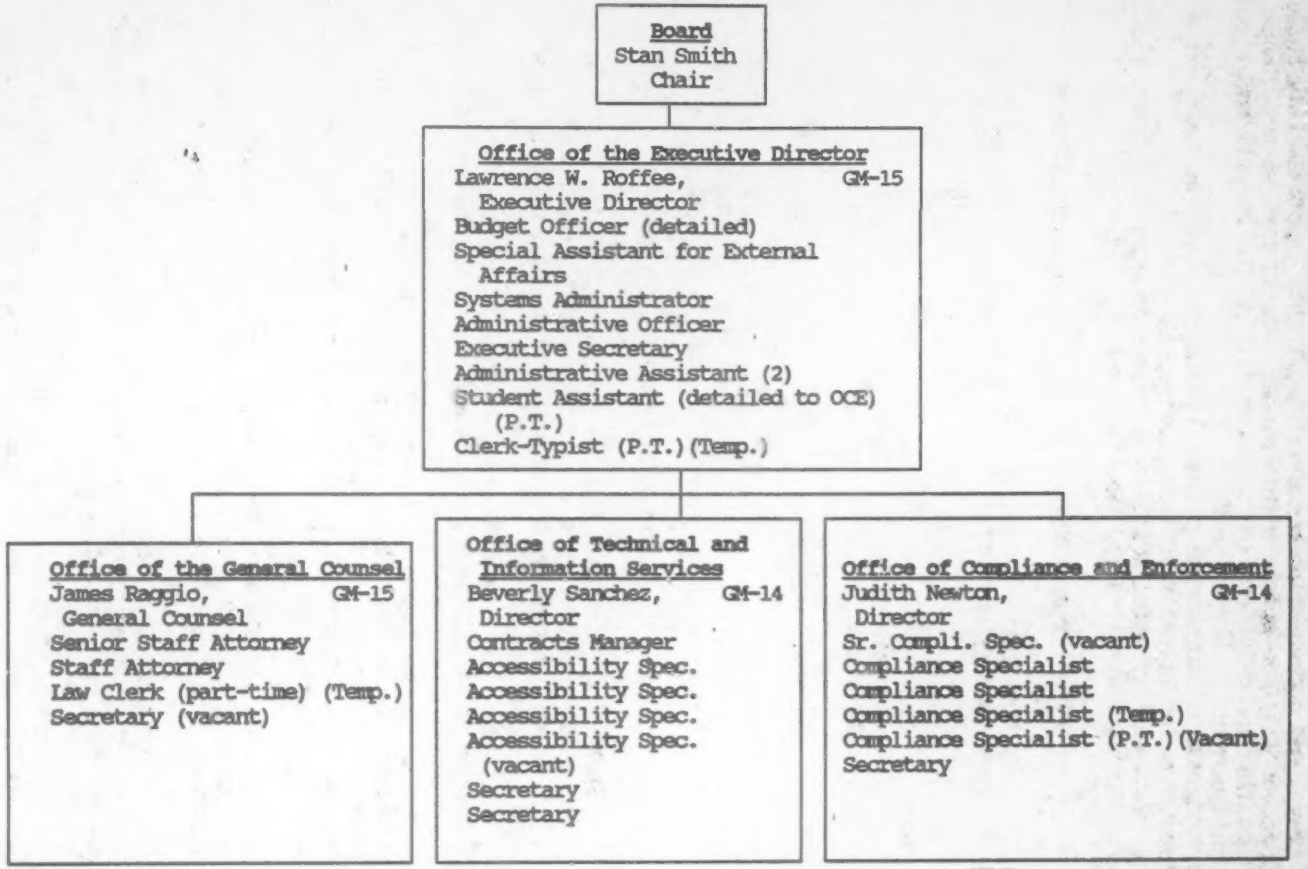
ANSWER: The number of Board staff covered by FERS for Fiscal Year 1988 was 12 (54%) at a cost of $86,243. For Fiscal Year 1989 to date, the number of covered staff is 11 (52%) at an estimated year-to-date cost of $56,760.

SENATOR LAUTENBERG: Provide the Board's organization chart listing the names, titles and personnel rank for each department head.

ANSWER:

[the information follows]

ATBCB Organizational Chart



COMPLIANCE AND ENFORCEMENT

SENATOR LAUTENBERG: How was the complaint process improved during Fiscal Year 1988?

ANSWER: During Fiscal Year 1988, the Board implemented significant changes in its internal compliance and enforcement procedures and the number of personnel allocated to perform this mandated function. In March 1988, the Office of Compliance and Enforcement (OCE) was created and staffed, and complaint processing procedures were examined and revised for more efficient and effective complaint handling. Among the procedural efficiencies implemented were delegating signature authority for complaint letters to the OCE Director, reducing the number of layers of review, using phone contacts in lieu of letters where possible, aligning OCE staff by agency to increase familiarity and working relationships with Federal agencies, eliminating lengthy case reviews, and developing procedures to increase consistency in complaint status reporting.

SENATOR LAUTENBERG: Please update the chart on page 721 of last year's hearing record and include data for Fiscal Year 1989 to date.

ANSWER:

[the information follows]

STATUS OF COMPLAINTS BY FISCAL YEAR RECEIVED
(FY 1977 - FY 1989)

REPORT DATE: MAY 2, 1989

FY	COMPLAINTS RECEIVED		UNDER INVESTIGATION	MONITORING CORRECTIVE ACTION	INTENT TO CLOSE LETTER SENT	TOTAL	% TOTAL RECEIVED	CLOSED FOR:			TOTAL CLOSED BY FY CLOSED
	TOTAL	%CHANGE FROM PREVIOUS FY						CORRECTIVE ACTION	NO JURISDICTION	NO VIOLATION	
1977	100	———	-0-	-0-	-0-	100	100.0%	43	49	8	
1978	155	55.0%	-0-	-0-	-0-	155	100.0%	62	85	8	
1979	176	13.5%	-0-	-0-	-0-	176	100.0%	89	83	4	
1980	160	-9.1%	-0-	1	-0-	159	99.4%	58	89	12	
1981	106	-33.8%	-0-	1	-0-	105	99.1%	49	55	1	
1982	119	12.3%	1	3	-0-	115	96.6%	57	53	5	
1983	129	8.4%	4	5	-0-	120	93.0%	50	59	11	
1984	233	80.6%	10	10	2	211	90.6%	58	145	8	132
1985	249	6.9%	8	9	1	231	92.7%	57	163	11	195
1986	91	-63.5%	7	8	1	75	82.4%	17	52	6	76
1987	217	138.5%	13	30	-0-	174	80.2%	68	90	16	123
1988	200	-7.8%	31	14	4	151	75.5%	18	116	17	271
1989	117		53	6	25	33	28.2%	2	31	-0-	218
TOTAL	2052		127	87	33	1805	88.0%	628 (34.8%)	1070 (59.3%)	107 (5.9%)	

SENATOR LAUTENBERG: Of the complaints received in each of Fiscal Years 1987, 1988, and 1989, how many actual violations were found?

ANSWER: We do not compile information on the number of actual violations, but rather on the number of cases where violations have been corrected. It is important to note that, in any one complaint, one or more violations of standards might exist.

Of the 217 complaints received in FY 1987, 174 (80.2%) have been closed as of May 2, 1989. Of these closed cases, 68 (39.1%) were closed because action was taken to correct the violation(s) and 16 (9.2%) were closed because no violation of the applicable accessibility standard was found. The other 90 (51.7%) cases were closed because the ATBCB did not have jurisdiction. Since the ATBCB does not proceed with its investigation in these cases, a determination whether a violation of standards actually exists is not made.

In FY 1988, 200 complaints were received; of these, 151 (75.5%) have been closed by May 1989. Of the closed cases, 18 (11.9%) were closed for corrective action, 17 (11.3%) for no violation, and 116 (76.8%) for no jurisdiction.

As of May 2, 1989, 117 FY 1989 complaints have been received, 33 (28.2%) of which have been closed. Two (6%) cases were closed for corrective action, and the ATBCB did not have jurisdiction in the remaining 31 (94%) cases.

SENATOR LAUTENBERG: Regarding the complaints received and actual violations found in Fiscal Year 1988, what Federal agencies were responsible for the facilities involved? Prior year data indicate that HUD (26.3%) and the Postal Service (36.4%) comprise 67.7% of all complaints. Are those two agencies not responsive? What is the basis for these high rates? What does ATBCB's 1990 budget propose to do to address these two agencies?

ANSWER: The Federal agencies responsible for the facilities involved in the 200 FY 1988 complaints are as follows:

TOTAL COMPLAINTS RECEIVED	200 (100%)
Complaints against Federal Agencies:	
U.S. Postal Service	38 (19.0%)
Department of Transportation	14 (7.0%)
Department of Housing and Urban Development	11 (5.5%)
General Services Administration	9 (4.5%)
Department of Education	9 (4.5%)
Department of Justice	7 (3.5%)
Department of Interior	7 (3.5%)
Department of Defense	6 (3.0%)
Department of Health and Human Services	2 (1.0%)
Department of Veterans Affairs	2 (1.0%)
Other Federal Agencies	5 (2.5%)
Complaints against non-Federal Agencies:	90 (45.0%)

The Federal agencies involved in the most FY 1988 complaints are U.S. Postal Service with 38 (19%), DOT with 14 (7%), and HUD with 11 (5.5%). The degree to which Federal agencies are involved in ATBCB complaints is more an indication of the type of Federal building people need or want to access rather than the agency's responsiveness. For example, USPS historically has been the Federal

agency against which most complaints are lodged. This is probably explained by the fact that the Postal Service operates over 36,000 facilities which are used daily by people with disabilities. While there are a significant number of complaints about post offices, the USPS is now one of the most responsive agencies working with the Board.

Regarding the percentage of FY 1987 cases which involved HUD, this figure was atypical as it reflected 45 complaints filed by one complainant against 45 separate public housing authorities. These complaints have been resolved through corrective action taken by HUD. As noted above, the percentage of total cases involving HUD in FY 1988 is smaller (5.5%).

Further, an important part of the Board's revitalization efforts is to achieve increased cooperation between Federal agencies and the Board to bring about amicable resolution of complaints.

SENATOR LAUTENBERG: On page 8, ATBCB indicates that the Board's complaint caseload is being processed in a "more orderly and timely way." How would ATBCB demonstrate such a claim?

ANSWER: In FY 1988, there were more complaints closed than opened (271 versus 200) for the first time since closure figures have been kept. A March 1989 annual OCE review revealed that new complaint files are being created and investigations started more quickly; cases are being closed faster, indicating improved communications with and commitment by responding agencies; and the number of backlogged cases (i.e., those open after 180 days) has been reduced by 50% while the number of new complaints received has kept pace with last year.

SENATOR LAUTENBERG: For the record, please provide a summary of the outcomes of ATBCB formal actions in Fiscal Years 1987 and 1988, including the settlement with the Smithsonian Institution (page 9). Also, provide a status report on the Philadelphia subway system investigation.

ANSWER: The Board attempts to resolve complaints informally with Federal agencies and recipients of Federal funds and to secure their agreement to voluntarily correct violations of accessibility standards. The Board initiates formal action by filing a citation to obtain an order of compliance under Section 502(d) of the Rehabilitation Act of 1973 (P.L. 93-112) as amended, only after efforts to informally resolve complaints have been unsuccessful. The Board has been successful in securing agreements from Federal agencies and recipients of Federal funds to voluntarily correct violations of accessibility standards without filing citations. In Fiscal Year 1987 and 1988, only one citation was issued to correct a serious safety hazard at the National Air and Space Museum. The hazard consisted of poles that extended from the ceiling and projected into travel paths. These poles could not be seen by visually handicapped persons or detected by blind people using proper cane techniques. The Board and the Smithsonian Institution were unable to reach agreement on correction of the violation and a citation was filed in April 1987. The Smithsonian Institution subsequently agreed to modify the travel paths to avoid the low poles and the citation was formally dismissed in June 1988. The corrective action has been completed and the case was closed in November 1988.

The Board has received five complaints involving the Philadelphia subway system. A total of 67 stations were covered by

the complaints. After investigation, it was determined that 44 stations were constructed or renovated with Federal funds without complying with applicable accessibility standards. The Board has conducted extensive discussions with the City of Philadelphia and the Southeastern Pennsylvania Transportation Authority to informally resolve the complaints and has secured agreements to voluntarily correct violations at 15 stations. Upon reviewing additional information, it was determined that at 23 stations it was not structurally possible to comply with standards or the items were otherwise exempt from the standards. The Board and the City of Philadelphia were unable to reach agreement on correction of violations at the Spring Garden and Second Street Stations on the Market-Frankford Line and a citation was filed in May 1989 to obtain an order of compliance with respect to those two (2) stations. Discussions are continuing on four (4) stations.

SENATOR LAUTENBERG: Has ATBCB ever investigated the New Jersey Transit or Amtrak? If so, what were the results?

ANSWER: Since 1977 there have been 17 complaints in which Amtrak has been a respondent. Ten (10) of these complaints have been closed; one (1) for corrective action, four (4) for no violation of the applicable accessibility standard, and five (5) for no jurisdiction. Seven (7) of the complaints are still open. Of these, two (2) have been amicably resolved and will be closed upon completion of corrective action, and five (5) are still under active investigation.

The New Jersey Transit is involved in two (2) of the above complaints, one (1) of the cases which is in monitoring corrective action, and another which is under active investigation.

AGENCY MANAGEMENT IMPROVEMENTS

SENATOR LAUTENBERG: Please provide a list of appropriate management changes taken, or contemplated, by the Board, which could be cited in support of improved agency management.

ANSWER: Among the changes that have occurred within the last year which have led to improved agency management are:

(1) reorganization of Board and staff to a mission specific structure; (2) staff reorganization that significantly reduced the number of layers of supervision within the agency, clearly defined responsibilities for each of the offices within the agency, and established a management structure with clear lines of authority; (3) creation of the Office of Compliance and Enforcement to more efficiently and effectively process complaints filed with the agency; and, (4) development and implementation of a 5-year agency workplan that delineates specific programmatic goals and objectives.

SENATOR LAUTENBERG: Please provide a copy of the VA report which recommended an improved personnel management and evaluation procedure, and a detailed explanation of the Board's response to that recommendation, and similarly provide a status report on other VA recommendations.

ANSWER: A copy of the Management and Organization Study completed by the Veterans Administration is attached.

The study was conducted to provide a broad assessment of the management and organizational structure of the agency in order to

identify problems in such areas as Board/staff relationships, Board organization, staff organization, and compliance and enforcement coordination. A total of 32 specific recommendations were made for reducing the problems identified.

The study found that policy, administration and management roles and responsibilities of Board members and staff had become crossed, leading to frustration, lack of commitment, and a loss of effectiveness. Implementation of many of the study's recommendations, most notably the Board and staff reorganizations, has contributed to developing a professional Board and staff relationship that continues to evolve and improve with refinement of operating policies and procedures.

At its March 1989 committee and Board meetings, members were presented with brief one-year followup report on the implementation of the study's recommendations. A copy of that report is attached.

MANAGEMENT AND ORGANIZATION STUDY OF THE ARCHITECTURAL AND TRANSPORTATION BARRIERS COMPLIANCE BOARD

By

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Veterans Administration
Associate Deputy Administrator for Management
Office of Program Analysis and Evaluation
Studies and Evaluation Service

January 1988

ACKNOWLEDGMENTS

The study team wishes to thank numerous individuals both inside and outside the Veterans Administration who provided assistance and cooperation throughout the conduct of this study.

In the Veterans Administration, a debt of gratitude is owed to Ms. Linda Reamy of the Office of the Deputy Administrator of Veterans Affairs. A special thanks goes out to Mr. John Walker and staff, Graphic Arts Section, for preparing superb briefing slides; Mr. Robert Ward and staff, Still Photographic Laboratory; and Mr. David Armwood, Film Projection Services. Additionally, Mr. Wayne Sartis and Ms. Terri Bean, Office of Information Systems and Telecommunications, provided valuable assistance with the assessment of the Architectural and Transportation Barriers Compliance Board's (ATBCB) automation capabilities.

We are grateful to Ms. Lois Jacobini, employee development consultant from the private sector and Mr. Dan Maday, General Services Administration, for providing braille services.

We thank Margaret Milner, Executive Director, ATBCB, who as liaison for this study, provided valuable guidance and expertise during the development of study issues and workplan and overall cooperation during the data collection phase of the study.

Finally, a very special thanks is extended to ATBCB members, staff, Federal agency staff liaisons and selected veterans service representatives for providing the study team with their candid views and suggestions for improving the Agency. Their cooperation and assistance were invaluable to the study team.

EXECUTIVE SUMMARY

PURPOSE

This study is a broad assessment of the management and organizational structure of the Architectural and Transportation Barriers Compliance Board (ATBCB). Its purpose is to identify problems in Board meeting preparation and conduct; in compliance and enforcement coordination; and in Board and staff organizational structure. Recommendations are offered for reducing these problems. Use of the term Board throughout the report refers specifically to the 23 appointed Board members. Conversely, the term Agency includes both Board members and staff.

SCOPE

The Deputy Administrator of Veterans Affairs as Chairman of the ATBCB has identified the following objectives:

- o enhance coordination with other agencies affected by ATBCB guidelines
- o improve processing time for complaint resolution
- o guide the staff to becoming more effective in the accomplishment of the mission of the Agency

The study focused on analyzing the organization and operation of the Board and its committees, the entire Agency staff organization, and other Federal agencies consistently involved in the ATBCB compliance and enforcement function.

BACKGROUND

The Architectural Barriers Act of 1968 (42 U.S.C. 4151, Public Law 90-480) established standards for all structures receiving Federal funding and required the removal of architectural and transportation barriers in order for disabled individuals to have access. The Rehabilitation Act of 1973 (29 U.S.C. 792, Public Law 93-112) created the United States Architectural and Transportation Barriers Compliance Board. The ATBCB serves as an independent Federal agency to enforce compliance with the standards prescribed in the Architectural Barriers Act of 1968 and to provide technical assistance on barrier-free facilities.

In May 1987, the Deputy Administrator of Veterans Affairs was elected to serve as the Chair of the ATBCB. On August 13, 1987, he requested that the

Veterans Administration's Office of Program Analysis and Evaluation conduct an organizational and management analysis of the Agency.

METHODOLOGY

To accomplish this study, surveys were sent to all Board members and Federal agency staff liaisons. Of the 23 surveys sent to Board members, 11 responses were received. The response rate for the 11 Federal agency staff liaisons surveyed was 73 percent--8 responses were received. Both Board members and Federal liaisons were asked in the survey to give their perceptions of relevant issues that impact the Agency's mission.

In addition to these survey instruments, telephone interviews were conducted with numerous Board members. All Agency staff were personally interviewed, two meetings were held with Federal agency staff liaisons (at their request), and five veterans service organizations were contacted to assess their perception of the Agency since they represent a substantial segment of the disabled community. Included in the volumes of data reviewed were past Board meeting minutes, agendas, budget requests, organization charts, legislative history, annual reports, and compliance and enforcement status reports.

SURVEY FINDINGS

The survey findings can be summarized into three broad categories: Board/staff relationships, administrative issues, and compliance and enforcement.

The analysis of the surveys identified that 82 percent of the Board members who responded cited Board and staff relationships as an important issue. The respondents indicated that the Board does not focus on policy formulation and direction, it is too involved in day-to-day staff operations, and the Executive Director is not allowed to function as the administrative head of the Agency. The respondents also stated that staff is not organized functionally to implement Board policies and that the Board members and staff need to coordinate their efforts in resolving the backlog of complaints.

In the area of Board administrative issues, the respondents stated that Federal Board members' poor attendance is perceived as a lack of commitment to the mission. The Board members also stated that the Board spends too much time on procedural matters such as proxies, voting, and office space and not enough time is spent on accessibility issues. Also, numerous Board members stated that the Board needs to establish an improved image in the public sector and increase the sharing of its expertise.

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The Federal agency staff liaison survey dealt specifically with the issue of compliance and enforcement coordination. Those responding stated that they would like to see an increased use of informal communication between the staff and the agencies and better complaint tracking to reduce inaccurate or delayed requests. There was also the desire for the Board and staff to be more cooperative and to develop an understanding for each agency's unique circumstances.

BOARD/EXECUTIVE DIRECTOR RELATIONSHIP

The role and function of a governing board for an agency with an executive director to implement board policy is a complex and somewhat unique form of management. Consequently, there is much discussion on how the players in a board governance organization should play out their roles. For board policy and administration there should be both separation and sharing of responsibility between the board and the staff at the same time.

Throughout the interview process, the study team heard a sense of frustration from both Board members and staff that the line designating the role each group should play has been crossed to the point that no one is certain of his or her responsibilities or authorities. This ambiguity has created a sense of frustration, a lack of commitment, and a breakdown in the effectiveness of the Agency functions.

To reduce this confusion, what constitutes the mission, policy, administration, and management roles for the dual organizations and each player's responsibility within that framework must be clarified. In addition to this clarification, the level of respect for one another needs to increase. The orientation of Board members needs to be improved to include: an interchange of qualifications, explanation of the Agency's budget, procurement and personnel policies, and a presentation on accessibility issues.

BOARD ORGANIZATION

The current Board organization consists of five subject matter committees and the Executive Committee. Each committee ultimately reports to the governing Board via the Executive Committee.

The numerous committees put a drain on staff resources for committee liaisons and meeting agenda packet preparation. The three-day committee and Board meetings creates duplication, and according to Federal members and staff liaisons, contributes to poor attendance.

The study team analyzed numerous options for proposed committee restructuring. The recommended option would retain the Executive Committee

and have it assume budget and planning functions and provide administrative oversight for the Agency. In addition, the proposed organization would consist of two subject matter committees. The first subject matter committee would combine the existing Research and Technical Assistance Committee functions of monitoring contracts and identifying research and technical assistance priorities. The second committee would combine the Standards and Compliance and Enforcement Committees. This would allow the standards that are enforced and the compliance function to have a closer relationship.

By reducing the number of committees, Board meetings could be held on two days instead of three. By holding committee meetings simultaneously and reducing distribution of committee agenda packets to committee members, we believe there will be a reduction in duplication, reduced demands on the staff, an increased emphasis on the mission, increased attendance, and improved effectiveness of full Board meetings.

STAFF ORGANIZATION

The current staff organization consists of the Offices of Technical and Information Services, Administration and Management, and the General Counsel. The research function for the Agency is managed from the Office of the Executive Director.

The current staff organization has numerous problems that are symptomatic of the need for reorganization. Those symptoms include an excessive number of layers of review and individual units that are far too rigid and over-structured. Lines of accountability and responsibility do not coincide, positions are ambiguous, and a breakdown in communication has occurred. The staff has too many bosses, tasks assigned do not coincide with position descriptions, the workload is inequitably distributed, and approximately 63 percent of staff are devoted to overhead functions.

The study team believes a reorganization would reduce some of these problems. A detailed explanation of the proposed organization is found in Chapter VI. This organization would decrease the percentage of staff devoted to overhead from 63 to 52 percent. Although this is a significant decrease, it could be improved further following a more sophisticated workload analysis. By combining positions with similar functions additional staff could be freed for compliance and enforcement. Further, a comparison should be conducted of staff's position descriptions and assigned tasks. This proposed organization would also reduce the layers of review, clarify lines of authority, improve coordination and communication, both within and between units, disperse the workload more equitably, and provide an increased emphasis on compliance and enforcement.

COMPLIANCE AND ENFORCEMENT

The Board has determined that compliance and enforcement is an area that should take priority over other Agency functions. Consistently since 1984 there have been more complaints opened than cases closed. This has resulted in a sustained increase in backlogged complaints. Backlogged complaints are all complaints not resolved within the regulatory period. The majority of cases closed have been closed for lack of jurisdiction.

Recently, the Agency has depended heavily on the use of contracted legal services for complaint processing. The use of these services is very expensive and creates confusion for staff and Federal agency liaisons. Throughout the surveys and interviews conducted with staff, there was an underlying absence of trust of Federal agencies. Also, the staff expressed concern with inaccurate complaint record maintenance. The administrative procedures and policies utilized by the compliance and enforcement staff seem ineffective; staff comment on not being able to locate files, case reviews seem to take an inordinate amount of time, and layers of review within the staff organization are excessive.

Due to the significant number of cases ultimately closed for lack of jurisdiction, initial verification of Federal funding should be actively pursued upon opening a complaint. This could be done with a telephone call and followed up with written verification.

With the proposed increase in compliance and enforcement staff, the use of compliance specialists, rather than attorneys for routine complaint processing, an automated complaint tracking system, and other management improvements, the use of contracted legal services should no longer be needed. It is recommended that the need for contracting legal services be reexamined.

To increase rapport and the level of trust with Federal agencies, the compliance and enforcement staff should be aligned by agency. The study team believes this would enable the agency liaisons to become familiar with working with the same specialist. This increased familiarity should also accommodate the use of more informal contact between the organizations, which would expedite complaint resolution and allow the complaint specialist to become familiar with that agency's funding programs.

GENERAL AGENCY CONSIDERATIONS

The environment that the Agency works in is a very dynamic, changing one. As times change, the contributions which can be made by the Agency also change. The dynamic environment and the potential for changing the way the

ATBCB reacts present opportunities for the Agency to assume a leadership role in addressing issues of accessibility in the years ahead.

I. INTRODUCTION

PURPOSE

This study is a broad assessment of the management and organizational structure of the Architectural and Transportation Barriers Compliance Board (ATBCB). Its purpose is to identify problems in Board meeting preparation and conduct; in compliance and enforcement coordination; and in Board and staff offices' organizational structure. Recommendations are offered for reducing the problems. Use of the term Board throughout the report refers specifically to the 23 appointed Board members. Conversely, the term Agency includes both Board members and staff.

SCOPE

In May 1987, the Deputy Administrator of Veterans Affairs was elected to serve as Chair of the ATBCB. On August 13, 1987, he requested that the Veterans Administration's Office of Program Analysis and Evaluation conduct an organizational and management analysis of the Agency. He identified the following objectives:

- o enhance coordination with other agencies affected by ATBCB guidelines
- o improve the processing time for complaint resolution
- o guide the staff to becoming more effective in accomplishment of the mission of the Agency

This study focuses on analyzing the organization and operation of the Board and its committees; the staff organization; and other Federal agencies consistently involved in ATBCB compliance and enforcement functions.

METHODOLOGY

To identify problem areas in Board meeting preparation and conduct, a survey was mailed to both Federal and public Board members to assess their needs for the agenda packet, travel arrangements, and their perceptions of the Agency's operations. In addition to these mail surveys, telephone interviews were conducted with Board members to obtain suggestions for improvement. Appendix A is a copy of the Architectural and Transportation Barriers Compliance Board Member Survey and Appendix B is a copy of the Public Board

Member Telephone Interview Guide. Five veterans service organizations were contacted to assess their perception of the Agency. These organizations represent a substantial segment of the disabled community.

Past attempts at long-term planning were reviewed and methods for improved planning identified. To develop an understanding of staff resources devoted to Board meeting preparation and conduct, all staff responsible for Board agenda production and travel arrangements were interviewed. Attendance at the September 1987 Board and committee meetings provided firsthand exposure to Board operations. To get an historical perspective, past meeting minutes were reviewed.

In the area of compliance and enforcement coordination, the complaint process was reviewed. (Appendix C is the current Complaint Processing Flowchart) The Veterans Administration's Office of Information Systems and Telecommunications met with the ATBCB compliance and enforcement staff to assess their automated complaint tracking needs and equipment capabilities. All staff responsible for compliance and enforcement were interviewed to develop an understanding of their involvement in the compliance and enforcement function. Complaint workload data, including complaint filing, complaint closure, processing time, and workload distribution were reviewed. To identify problem areas and methods to improve complaint resolution, a mail survey was sent to Federal agency staff liaisons of the 11 Federal agencies that serve on the Board. Appendix D is a copy of that survey.

To develop an understanding of the Board and staff organizational structure, position descriptions of all Board staff were reviewed. All staff were personally interviewed to identify their specific tasks, lines of responsibility, and communication channels. Flowcharts for the principal functions of the staff were developed to serve as working models for the data analysis phase of the study. Through the use of these flowcharts, the position description review, and staff interviews, areas of duplication and underutilized skills were identified.

Prior to this management and organization study, the Executive Director hired an employee development consultant to work with the staff to improve employee relations. The study team met with this consultant to discuss her findings and identify areas where this study could assist in improving Board staff employee relations.

BACKGROUND

The Vocational Rehabilitation Act, amended in 1965 to expand the public program for rehabilitating disabled people, authorized the National Commission on Architectural Barriers. The Commission grew out of a Congressional desire

to eliminate architectural barriers and to establish plans for further action. The Congressional mandate climaxed the efforts of the public and nonprofit groups that had worked to secure voluntary compliance with the American National Standards Institute Specifications for Making Buildings and Facilities Accessible to, and Usable by, the Physically Handicapped, A117.1-1961 (American National Standards Institute [ANSI Standard]).

The ANSI Standard, developed by the President's Committee on Employment of the Handicapped, the National Easter Seal Society for Crippled Children and Adults, and various Federal and private agencies, was field tested by disabled students from the University of Illinois. On October 31, 1961, the ANSI, established to coordinate the development of voluntary national standards, issued the ANSI standard. The standard was distributed throughout the United States by various national organizations, including the National Easter Seal Society for Crippled Children and Adults.

By 1965 24 states had taken some kind of legislative action to eliminate architectural barriers in public buildings. Much of the legislation, however, was too discretionary and not comprehensive in coverage. Too few public buildings were being constructed barrier-free. There had been no concerted local efforts to activate an accessibility program. At the Federal level, no government-wide order had been issued to insure elimination of barriers in the design and construction of Federally assisted projects.

On August 12, 1968, the Congress enacted The Architectural Barriers Act of 1968 (82 Stat. 718, 42 U.S.C. 4151 et seq., Public Law 90-480). It established standards for all structures receiving Federal funding, requiring the removal of architectural and transportation barriers for disabled individuals to access the facility.

Section 502 of the Rehabilitation Act of 1973 (87 Stat. 391, 29 U.S.C. 792, Public Law 93-112), enacted on September 26, 1973, created the ATBCB. The ATBCB serves as an independent Federal agency to enforce compliance with the Architectural Barriers Act of 1968 and provide technical assistance on barrier-free facilities. The Agency's functions include:

- Insuring compliance with the standards prescribed by GSA, DOD, USPS, and HUD pursuant to the Architectural Barriers Act.
- Initiating investigations on the nature of architectural, transportation, and attitudinal barriers confronting handicapped people particularly with respect to public buildings and monuments, parks and parklands, public transportation systems, and residential and institutional housing.
- Considering the housing needs of the handicapped people.

- Determining how and to what extent transportation barriers impede the mobility of the handicapped and considering ways in which their travel expenses to and from work can be met or subsidized.

- Determining the actions being taken by other governmental units and public and nonprofit agencies and preparing proposals for consolidating the efforts of agencies, organizations, and groups whose cooperation is essential for effective and comprehensive action.

- Conducting investigations, holding public hearings, and issuing such orders as it deems necessary to insure compliance with the act's provisions.

- Making recommendations to the President and to the Congress for administration and legislation as deemed necessary or desirable to eliminate architectural, transportation, and attitudinal barriers to handicapped people.

CURRENT BOARD ORGANIZATION

The ATBCB is composed of 23 members. Twelve members are appointed by the President from the general public, six of whom must be handicapped. The remaining 11 members of the Board are heads of the following departments or agencies (or their designees Executive Level IV or higher):

(1) Department of Defense
(2) Department of Education
(3) Department of Health and Human Services
(4) Department of Housing and Urban Development
(5) Department of the Interior
(6) Department of Justice
(7) Department of Labor
(8) Department of Transportation
(9) General Services Administration
(10) United States Postal Service
(11) Veterans Administration

Each public Board member is appointed to a three-year term, with initial appointments staggered to allow for continuity. The Chairperson is elected by the Board members for a one year term and is held on a rotating basis by a Federal or public Board member. When a Federal member is serving as Chair, the Vice-Chairperson must be a public member and vice versa. The Chairperson represents the Board as the head of the Agency. The Chairperson, or his or her designee, has the following duties and responsibilities:

- Coordinate and organize the work of the Agency to promote prompt and efficient disposition of all matters within the Agency's jurisdiction.

- Preside at all meetings and sessions of the Board.

- Represent the Board in all matters relating to Congressional testimony and legislative reports.

- Represent the Board in all matters involving submissions of comments on agencies' proposed regulations and responses to published directives of the Office of Management and Budget.

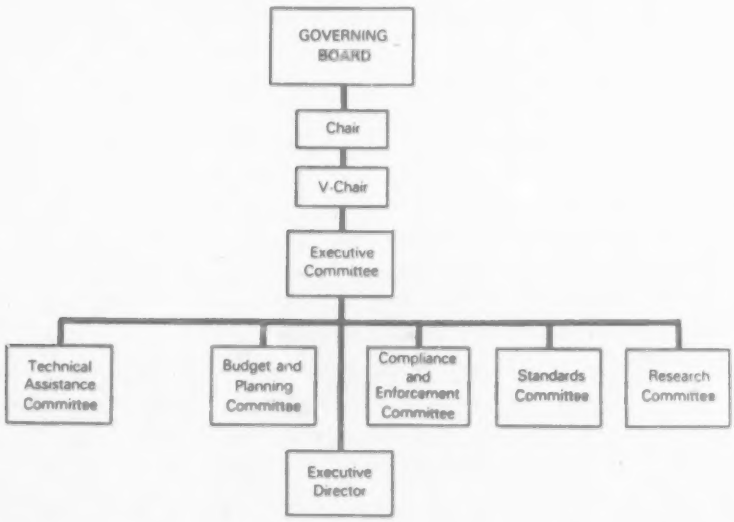
- Maintain ongoing liaisons with constituency groups and other organizations and with staff of interested Congressional committees to keep them informed of general Board policies and activities and to obtain information for use by the Board in formulating policy, developing budget requests, and drafting recommended legislative changes.

- Carry out other duties and responsibilities as may be delegated by the Board.

The Vice Chairperson, in the absence of the Chairperson, performs the duties and exercises the powers of the Chairperson, and assists by performing other duties as directed by the Chairperson or the Board.

The governing Board is currently subdivided into five subject matter committees with four public members and four Federal members on each committee and the Executive Committee with three public members and three Federal members. The following is a visual depiction of the current Board organization. (See Figure I-1)

FIGURE I-1
Current Board Organization



The Compliance and Enforcement Committee recommends priorities for compliance activities, regularly informs the Board of compliance operations (including reports on processing of complaints), and periodically reviews the Agency's compliance regulations to recommend revisions or amendments when necessary.

The Budget and Planning Committee is responsible for maintaining administrative oversight of ATBCB operations. This includes review of

administrative contracts, space requirements, pay compensation policies, staff resource requirements, and procurement policies. A primary responsibility of the Committee is the development of the Agency's budget for each fiscal year. Long- and short-range plans are developed in consultation with other Board committees.

The Standards Committee is responsible for developing proposals for revisions to the Minimum Guidelines and Requirements for Accessible Design (MGRAD), based on reviews of current access requirements, research findings, and practice. The Committee also helps identify for the Research Committee areas where research is needed to permit the Board to update or develop the MGRAD. This Committee works with the standard setting agencies as they develop revisions to the Uniform Federal Accessibility Standards and, as requested, will develop for the Board comments on other accessibility standards such as the ANSI A117.1. This Committee also develops advisory standards on overcoming architectural barriers to assist any public or private activity, person, or entity affected by regulations under Title V of the Rehabilitation Act of 1973.

The Research Committee is responsible for recommending annual priorities for Agency-funded research. In addition, this Committee monitors the Agency's research contracts and keeps the Board informed of significant developments on each project. Reports on research projects, both Agency and non-Agency sponsored, are reviewed and Board and public comments are solicited as appropriate and incorporated in final research plans and other documents. This Committee also initiates and maintains contacts with other Federal agencies conducting research of interest to the ATBCB and coordinates with the Standards and the Technical Assistance Committees to ensure that appropriate action is taken on research accepted and approved by the Board.

The Technical Assistance Committee recommends annual priorities for technical assistance activities. Other responsibilities include outreach activities to agencies, organizations, and individuals concerned with removal of barriers and development of educational activities and materials, such as technical assistance bulletins and reports of research findings.

Dissemination of technical information, as well as the production of materials are also under the purview of this Committee. In conjunction with the Standards and Research Committees, it further identifies technical assistance activities.

The Executive Committee is responsible for reviewing and considering recommendations and proposals from the other subject matter committees. Following review, the Executive Committee may place the proposal on the Board agenda, refer it back to the subject matter committee for further refinement or revision, or give the proposal to another committee for appropriate

action. The Executive Committee also issues recommendations on proposals for the Board's agenda and ensures the orderly functioning of the committees. This Committee also assists the Chairperson as requested, arranges for joint subject matter committee meetings, reviews requests to the Board to enter litigation as amicus curiae,* reviews and makes recommendations to amend the Board's Statement of Organization and Procedures, and other duties as delegated by the Board.

The Governing Board of the ATBCB has an Executive Director selected by the Board and supervised by the Chairperson. The Executive Director is appointed by the Board and is responsible to the Board under the supervision of the Chairperson. He or she has the following responsibilities:

- Assist the Chairperson in carrying out the administrative and executive responsibilities of the Chairperson.
- Serve as the administrative head of the Agency by planning, directing, coordinating, and managing of the administrative affairs of the Agency.
- Recommend to the Executive Committee matters that should be considered by the Board.
- Review with the Board and with heads of several units and offices the program and procedures of the Board and make recommendations as needed to administer Section 502 of the Rehabilitation Act of 1973.
- Provide administrative leadership, supervision, and management of staff activities in carrying out Board policies and decisions.
- Direct compliance and enforcement activities.
- Direct and supervise the development and execution of routine technical assistance and public information programs.
- Provide special administrative assistance to the Board as requested by the Chairperson.
- Direct investigation and research of initiatives submitted by staff or Board members regarding technical assistance or other Agency functions.
- Propose and implement changes in the functional organization of the Board staff offices, following written notification to the Board.
- Submit biweekly reports to the Chairperson.
- Prepare and distribute minutes for all Board meetings.
- Refer correspondence by the Agency which involves a specific department or agency, to that department or agency for a reply.

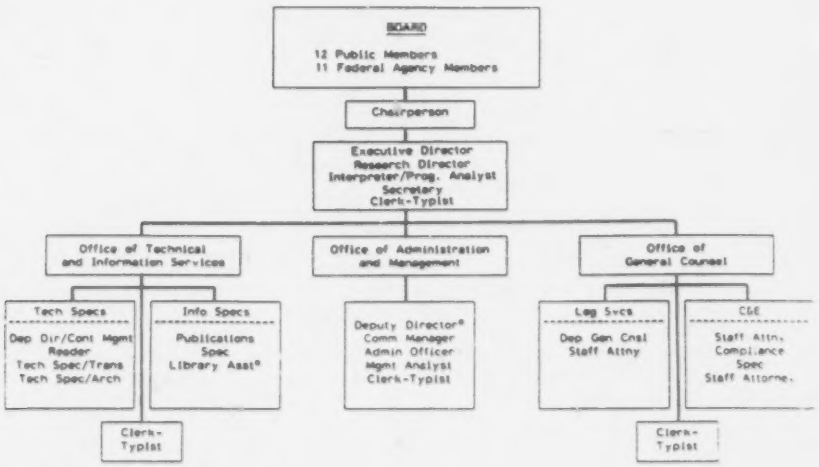
* - Means, literally, friend of the court. A person with strong interest in or views on the subject matter or an action may petition the court for permission to file a brief, ostensibly on behalf of a party but actually to suggest a rationale consistent with its own views (Black's Law Dictionary).

- Account to the Board for the administration or program expenditures and keep records which disclose disposition of any funds and the nature and extent of the Agency's activities.
- Report semiannually to the Board on each procurement regardless of amount, entered during the fiscal year.
- Maintain and keep a separate file containing all delegations of authority.

CURRENT STAFF ORGANIZATION

The 26-member staff supervised by the Executive Director is currently composed of four units: the Office of the Executive Director, the Office of Administration and Management, the Office of Technical and Information Services; and the Office of the General Counsel. With the exception of the General Counsel, all staff are selected by the Executive Director. Although the Executive Director supervises the General Counsel, he or she is nominated and selected by the Chairperson. The following is a visual depiction of the current organization. (See Figure I-2)

FIGURE I-2
Current Staff Organization



* Part-time

The Office of the Executive Director provides overall direction and supervision to Board staff. The Director of Research and the Interpreter/ Program Analyst, responsible for coordinating and overseeing all research projects, are located in the Office of the Executive Director.

The Office of Administration and Management is responsible for the overall administrative and management support services. The office consists of a Director, Deputy Director, Administrative Officer, Communication Specialist, Management Analyst, and clerical support.

The Office of Technical and Information Services has two separate divisions: the Technical Specialist Division and the Information Specialist Division. The Director oversees both units. In the Technical Specialist Division is a Deputy Director, a Reader, the Transportation Specialist, and the Architectural Barriers Specialist. In the Information Specialist Division is a Publication Specialist and a part time Librarian position, both of which are currently vacant. The unit is serviced by a clerk typist.

The Office of General Counsel is also divided into two divisions: Legal Services and Compliance and Enforcement. Both units are supervised by the General Counsel. The legal services division has a Deputy General Counsel and a Staff Attorney. The Compliance and Enforcement Division has a Staff Attorney and a Compliance Specialist. The office is serviced by a clerk typist.

II. SURVEY FINDINGS

This chapter presents survey results from 23 Board members, 11 Federal agency liaisons, and five veterans service organization representatives. This data was collected to assess the Agency's operation in fulfilling its mission, to evaluate Board/staff/Federal agency liaisons relations, and to determine other significant issues.

RESPONSE RATE

To collect data from Board members the study team utilized telephone interviews and mailed questionnaires to the 23-member Board consisting of 12 public and 11 Federal members. The Board members survey response rate was 48 percent (11). Although all public members were contacted, telephone interviews were conducted with 8 or 67 percent of the public Board members. Board members were asked to give their perceptions of the Agency's mission, Board and staff relations, and administrative issues.

Questionnaires were mailed to the 11 Federal agency liaisons. Eight or 73 percent of the Federal agency liaisons completed and returned the mail questionnaires. Federal agency liaisons are selected by each of the 11 Federal Board members to coordinate their agency's accessibility activities with Board and staff members. Federal agency liaisons were specifically surveyed to assess their perception of the interaction with Board and staff members on accessibility issues.

To gain an outside perspective of the Agency, the study team conducted telephone interviews with representatives of the Veterans of Foreign Wars, Paralyzed Veterans of America, American Legion, Blinded Veterans Association, and Disabled American Veterans. The veterans service organization

representatives were asked to give their perceptions of the Agency's mission and to rate its effectiveness in accomplishing this mission.

BOARD MEMBERS

The most significant information obtained from the analysis of the Board member's questionnaires were perceptions of Agency mission, Board and staff relations, and administrative issues that impact on the Agency's function.

Agency's Mission

All Board members surveyed expressed different perceptions of the Agency's mission. There was no uniform or clear definition of the Agency's mission. The following delineates the Agency's mission as perceived by the Board members surveyed:

- o enforcing compliance of access standards
- o investigating alleged violations of the Architectural Barriers Act of 1968
- o examining approaches to eliminate architectural, transportation, and communication barriers
- o maintaining effective communication and interaction between Board and staff

Board and Staff Relations

Eighty-two percent of the Board members responding cited Board and staff relations as a significant issue. Following is a summary of those views:

- o Eighty-two percent reported that the Executive Director's Monthly Letter is a useful communication tool to promote Board and staff relations.
- o Board does not focus on policy formulation and direction and is too involved in day-to-day staff operations.
- o The Executive Director is not allowed to function as the chief executive officer.
- o Staff is not organized functionally to implement Board policies.
- o Staff does not use the chain of command when interacting with Board members.
- o Selected staff members are openly campaigning for particular politicians or a particular party.
- o Board and staff need to coordinate their efforts in resolving the backlog of complaints concerning accessibility.

Administrative Issues

Board members cited the following administrative issues as the reason the Agency's progress has been impeded:

- Federal Board members do not attend meetings regularly. This is perceived as a lack of commitment by the public members.
- Board is comprised of grandstanding individuals seeking political advantages for themselves.
- Fifty-five percent of the Board members surveyed believe that the Board is too large and the three-year term is too short. Forty-five percent of the Board members are satisfied with the current Board structure.
- Board spends too much time on procedural matters such as proxies, voting, office space, etc., and not enough time on accessibility matters. Fifty-five percent of the Board members who responded stated that greater focus is needed on compliance and enforcement issues.

FEDERAL AGENCY LIAISONS

Federal agency liaisons are responsible for coordinating their agency's accessibility activities with Board and staff. They were surveyed by the study team to assess their experiences of interacting with Board and staff. The following table highlights Federal agency liaisons' ratings regarding their interaction with Board and staff.

TABLE II-1
LIAISONS' PERCEPTIONS OF INTERACTION WITH AGENCY STAFF

ACTIVITY	RATINGS (PERCENT)				
	EXCELLENT	GOOD	FAIR	POOR	OTHER
Coordinating efforts with Board and staff	12	38	38	--	12
Correspondence addressing complaints filed	12	38	25	--	25
Working relationship with Board and staff	12	38	38	--	12

NOTE: "Other" category indicates improving.

When Federal agency liaisons were asked to rate coordination efforts with staff on complaint resolution regarding accessibility, 50 percent rated them as helpful. When asked to rate follow up on correspondence by staff, 37 percent indicated it was often delayed, 25 percent thought it was timely, 25 percent rated it sufficient, and 13 percent stated it was improving.

Following is a general overview of Federal agency liaisons' suggestions for improving their interaction with Board and staff:

- o improve logistics with Federal agency liaisons in handling correspondence by expediting the administrative procedures
- o utilize telephone calls in lieu of formal letters to expedite the complaint resolution process and to determine if complaints fall within the Federal facility or Federally funded facility jurisdiction
- o develop program guidelines which outline Board and staff roles in resolving complaints filed regarding accessibility
- o develop a quarterly list showing the status of each complaint filed by agency
- o reduce the number of attorneys on staff and replace them with program or management analysts
- o determine the feasibility of automating certain administrative procedures such as tracking accessibility complaints
- o establish a higher profile for the Agency in the public sector and share their expertise with the private sector

VETERANS SERVICE ORGANIZATION REPRESENTATIVES

Since veterans service organizations serve as advocates for disabled veterans, the study team conducted telephone interviews with representatives of the Veterans of Foreign Wars, Paralyzed Veterans of America, American Legion, Blinded Veterans Association, and Disabled American Veterans. These representatives were asked to give their perceptions of the Agency's mission and to rate its effectiveness in accomplishing this mission. Survey findings indicated that 60 percent of the representatives were familiar with the Agency's mission and 40 percent had attended at least one Board meeting.

Representatives were asked to rate the Agency in fulfilling its mission of enforcing compliance by public and Federally funded private organizations in constructing barrier-free facilities for handicapped individuals. The ratings are depicted as follows:

TABLE II-2
PERCEPTIONS OF AGENCY FULFILLING MISSION

Rating	Percent
Excellent	0
Good	40
Fair	0
Poor	20
Don't Know	40
TOTAL	100

As indicated in the above table, the 40 percent rating in the "don't know" category is clearly an indication that the Agency has maintained a low profile in performing its mission; conversely, 40 percent reported the mission

accomplishment is good. The 20 percent poor rating reflects a perception that the Agency is not fulfilling its legislative charter.

When representatives were asked to give recommendations on how the Agency could be improved, 80 percent did not have any recommendations and 20 percent indicated that it should be reduced from 23-members to five. Further, it was stated that the five-member Board should mirror the composition of the Equal Employment Opportunity Commission: a Chairperson and four members. Additionally, the five-member Board would reduce the Chairperson's span of control, force the Board to focus on policy issues, and allow more resources to be transferred to staff for aggressive resolution of the complaint backlog. However, it should be noted that a reduction in Board membership would require a change in legislation.

One veterans service organization closely monitored a House Appropriations subcommittee hearing with the Agency in April 1987 regarding accessibility. Another has requested that a Congressional subcommittee conduct a hearing in early spring 1988 to determine if the Agency is fulfilling its statutory obligations.

All representatives interviewed stated that their organizations should be invited to attend more Board meetings. As they have the expertise and sensitivity to deal with accessibility issues, they indicated that they could assist the Agency in the following ways:

- o promote the Agency's mission
- o conduct inspections of Federal buildings to determine accessibility for handicapped individuals
- o serve as consultants

All representatives expressed a desire to meet with the Board's Chairman to discuss future involvement with the Agency.

III. BOARD/EXECUTIVE DIRECTOR RELATIONSHIP

GENERAL

Dr. James H. Svara, a specialist in the area of effective board governance, provides the following framework on how a governing board/executive director relationship should operate.

Effective governance and management requires that appointed officials and career service employees work together cooperatively handling their distinct roles and responsibilities. A division of responsibilities along the lines of "policy" and "administration" is the common guide to determining who does what.

With the growing complexity of Federal government and the increasing contribution of professional staff, this simple division of responsibility can break down. Some boards feel they must decide all the specific details of "policy" to do their job properly, but in the process of handling such detail they can lose track of future problems that need to be addressed. Many are interested in the administration of policy. Some limit their involvement to careful oversight of staff performance while providing services. Other boards get involved in the specifics of providing services or implementing a program. Also, managers and other staff make substantial contributions to policy through recommendations on programs, drafting the budget, and the exercise of discretion.

Through the process of implementing policy and delivering services, career staff exert a substantial influence over the final shape of programs. Most officials want to discharge their responsibilities properly and not stray outside their proper sphere of activity. The complexities of modern government, however, make it difficult to identify these boundaries. With effective board/staff relationships there is sharing and separation of responsibility found simultaneously.

Determining "policy" involves defining organizational purpose, and setting broad goals--formulation of mission--as well as the specification of detailed middle range policy, such as content of the budget or vehicle for service delivery. Execution involves the implementation of policy. The translation of policy into actual programs requires both administration and management.

Administration involves program operating procedures and determining delivery of services while the creation and maintenance of personnel, budgeting, informational, and other systems, which sustain but are independent of administration, are called management. The definitions and distinctions are summarized in Figure III-1:

FIGURE III-1
DEFINING FOUR DIMENSIONS OF GOVERNMENTAL ACTIVITY

Common Usage	Dimension	Examples
POLICY	MISSION	Legislation; determining purpose and direction of the ATBCB; determining scope and services
	POLICY	Creating programs; passing procedures; approving the budget; directing/approving long-term ATBCB plan
	ADMINISTRATION	Implementing policy; developing program operating procedures; delivering services to public; undertaking projects

ADMINISTRATION

MANAGEMENT	Operations; systems for control and coordination of staff; systems and procedures for personnel, finance, purchasing, information processing

It is useful to view what government does in terms of these four dimensions in order to insure that significant activities are not overlooked and to clarify the division of responsibilities. As detailed in the next section, the confusion over responsibility for policy is clarified by examining the contributions of appointed officials to mission and policy. Similarly, the appropriateness of involvement by appointed officials in "administration" depends on whether one focuses on implementation or operation.

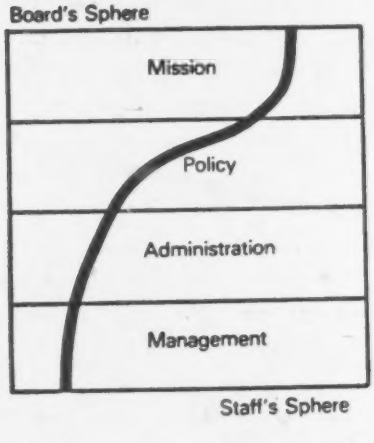
DIVISION OF RESPONSIBILITY

The division of responsibility is one of both separation and sharing. A graphic presentation of the division is presented in Figure III-2.

FIGURE III-2

Dichotomy - Duality Model

Dimensions of
Governmental Process



Source: Public Administration Review, James H. Svara

A summary of Dr. Svara's article "Dichotomy and Duality: Reconceptualizing the Relationship Between Policy and Administration in Council-Manager Cities" published in the 1985 January/February Public Administration Review follows:

Major responsibility for **MISSION** is exercised by appointed officials. Although staff make substantial contributions in the form of recommendations, identification of problems, planning, and assessment of feasibility of alternative "futures," the major decisions concerning purpose, scope, and direction are made by the board.

Responsibility for **MANAGEMENT** is largely the responsibility of the executive director and staff. This is not to say that the board should not be interested in operational matters. Change in management "policy" may be originated in the board. Boards are also legitimately interested in questions concerning organizational design and performance, e.g., productivity improvement. The executive director is expected to take the lead in providing quality staff and effective management systems to support the accomplishment of the goals and objectives communicated by the board. Furthermore, the board should refrain from interference in operational details such as who gets jobs, raises, or contracts. This is the executive director's area of responsibility, but the board should be an interested observer capable of intervening when problems arise which the executive director is not correcting.

Responsibility for **POLICY** is shared. Although the board is ultimately responsible for all policy decisions, many of them are made or shaped by staff. The execut e director exercises discretion to formulate some policies, and staff is responsible for determining t! . vehicle to execute policy. The board is dependent on the executive director for a host of recommendations, the most important of which is the budget which contains the policies of the agency in dollar terms. What should be expected is not that the board will make all policy; they would be overwhelmed by this task. Executive directors contribute to policy making, and it is reasonable to expect that the executive director will advance the mission of the organization in making decisions and recommendations. The mission, determined by the Congressional legislation that created the board, provides the framework within which the executive director influences policy. Recognition of sharing helps the board get the most from the executive director and focuses attention on the necessity of the board to provide clear guidance.

There is also considerable sharing with respect to the **ADMINISTRATION**, or the implementation of policies. Boards are and should be interested in how policies are translated into programs, how services are delivered, or compliance enforced. Boards are informed about the development of program operating "regulations," such as the procedure for compliance enforcement. Boards need to be careful, however, not to get bogged down with specific choices they may be poorly suited to make. They must also take care that the most common form of intervention in administration, investigating complaints, does not obstruct staff performance, nor divert board attention from broader issues. Boards should concentrate on general patterns of

implementation, service delivery, and compliance and enforcement, digging into details only when the situation demands it. For example, they should ensure that a good system for handling complaints and providing follow-up information to board members is in place, rather than pursuing the random complaints they receive directly. Also, they should stress the importance of examining general service accomplishments and insist on periodic evaluations. Staff, on the other hand, should discharge their considerable responsibility for implementation with commitment to the values of fairness, equity, and openness.

Deviations occur as the board pushes into the staff sphere or the executive director assumes greater informal influence over mission and policy. These deviations tend to have two impacts: first, they generate conflict between board and staff; and second, they weaken the insulation of staff from inappropriate intrusion by appointed officials. Lack of clarity in responsibility between the board and executive director can lead to friction and impair performance.

After attending the September ATBCB meeting and conducting telephone and mail surveys with the Board members, it was apparent that the division of responsibility has broken down. The Board appears to be devoting an inordinate amount of time to the Agency's administrative aspects. To clarify the roles and responsibilities expected by both Board members and the Executive Director, there needs to be a clarification of authorities and responsibilities of each. Although this has been specified in the authorities and delegations published in the Federal Register, May 15, 1986, further role definition is needed. The Board and staff should consider how the authorities and delegations are currently assigned and determine if that is how they should be allocated. If so, the Board should reassess how it is currently operating?

More specifically, during the data collection phase, there was a sense of frustration from Board members, staff, and federal liaisons that this line has been crossed by both groups to the point that it has become unclear and now no one is certain of his or her responsibilities or authorities. This ambiguity has created a sense of frustration, a lack of commitment and a breakdown in the effectiveness of the Board and staff functions.

The Executive Director in her relationship to the Board needs to be more assertive and supportive at the same time. Assertiveness is required to clarify her role and to help the Board understand what it must do, and supportiveness is needed to assist the Board in discharging its responsibilities.

SUMMARY

The Board and Executive Director can perform better and improve the effectiveness of the Agency by raising their mutual expectations. The Board can be more positive about what they contribute, especially in their capacity as formulators of Agency mission. They can ease their anxiety about the activity and influence of Executive Director and staff on policy by accepting the legitimacy and necessity of staff contributions. Finally, the Board can organize and broaden its appraisal of the Executive Director and the organizational performance and be in a better position to support the Executive Director's role. If the changes recommended are carried out, the Executive Director would not only have a stronger, more aware Board to work with, but also a clearer and broader mandate, and more freedom to manage. The result can be increased involvement by both the Board and Executive Director for more effective governance and management. For additional information on board of directors and advisory councils and management of committees, boards and councils, a recommended reading list is included in Appendix E.

RECOMMENDATIONS

1. Develop a position description for Board members to clarify their roles and responsibilities.

2. Clarify authorities and delegations between the Board and staff. The current allocation of authorities and responsibilities as stated in the Federal Register, should be reviewed and modified as appropriate.

3. Identify a consultant with an expertise in board/manager relationship to meet with the Board and conduct exercises that will lead to an improved relationship.

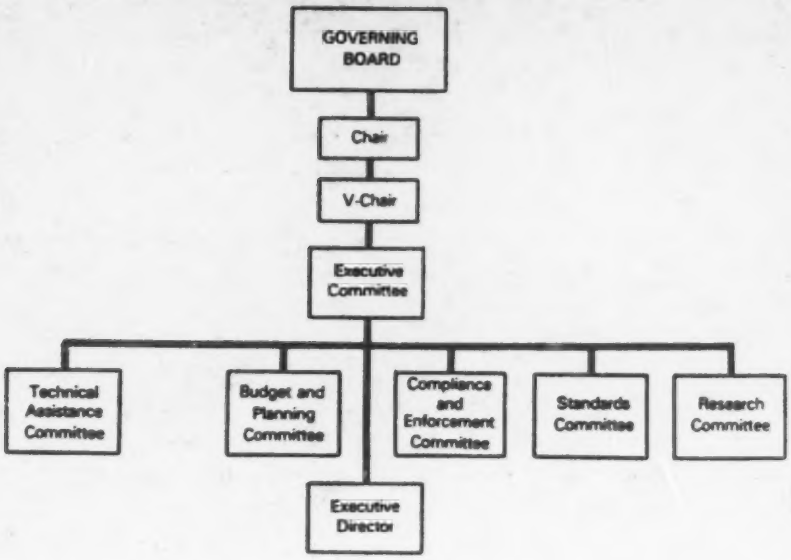
4. Provide the Executive Director the opportunity to attend advanced management training. This would allow her to be better suited to accommodate the needs of staff and Board members. This training should include programs emphasizing the unique characteristics of board governance and staff performance management.

IV. BOARD ORGANIZATION

CURRENT ORGANIZATION

The governing Board is currently subdivided into five subject matter committees and the Executive Committee. Figure IV-1 is an organization chart of the current Board organization. A description of each committee is found in Chapter I.

FIGURE IV-1
Current Board Organization



FINDINGS

Although the Board members' survey responses varied, almost without exception, Board members stated that there is a need to reduce the number of subject matter committees. Also, the Board members stated that the three-day Board meeting creates duplication and attributes to poor attendance. Additionally, it was found that the numerous committees put a drain on staff resources for committee liaisons and agenda packet preparations.

Due to the proposed adoption of the American National Standards Institute Standards, the previous emphasis on research and standard setting has been diminished. Due to the limited ATBCB research budget, perhaps those research dollars could be better spent by coordinating with Federal agencies to identify related research projects in progress and contribute to these efforts by adding additional tasks that would be accessibility specific. Lessened emphasis on research and standard setting reduces the need for a separate committee to handle these areas.

It was further found that the Executive Committee has no functional responsibility and is consequently serving as a mini-Board meeting. Following the Executive Committee meeting it is apparent how members will vote on specific issues and the full Board meeting is reduced to "going through the motions."

The three-day committee and Board meetings create duplication, and according to Federal agency members and staff liaisons, contributes to poor attendance. The fact that Board members are able to attend all committee meetings reduces the effectiveness of the "working" committee and dilutes the impact of the full Board meeting.

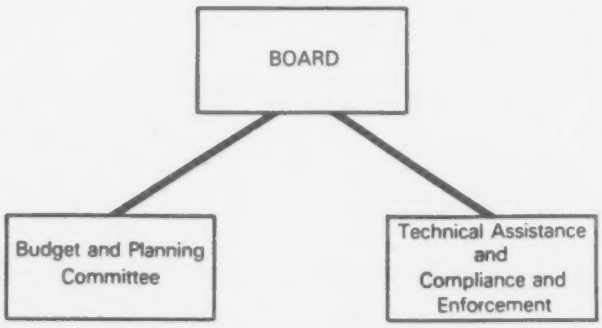
Additionally, the Board members stated there were too many committees and a lack of understanding and/or commitment to the Agency mission. The Board members expressed frustration with the lack of substantive mission-related issues being addressed at the committee meetings and felt that too much time is spent on procedural matters, such as space, proxies, attendance and staff operations.

OPTIONS

Numerous options for proposed committee organization were considered to assist the Board in determining which committee structure would best accommodate the needs of the Agency. The three most viable options are presented below, with advantages and disadvantages presented for each option.

OPTION ONE: Eliminate Research, Standards, and Executive Committees. Combine Technical Assistance and Compliance and Enforcement Committees and maintain the Budget and Planning Committee. (See Figure IV-2)

FIGURE IV-2
OPTION ONE



Combining policy responsibility for both technical assistance and compliance aspects of the ATBCB standards would help the Board cultivate a more cooperative environment as they would not only be citing agencies for negligence in enforcing the accessibility standards, but also could be guiding and educating the agency on the technical components of the standard so that the violation is not repeated. The Budget and Planning Committee is necessary

to monitor the Agency's budget and develop short- and long-term plans to carry out the Board's objectives. The size of the committees would remain the same, with four Federal members and four public members on each committee.

Advantages:

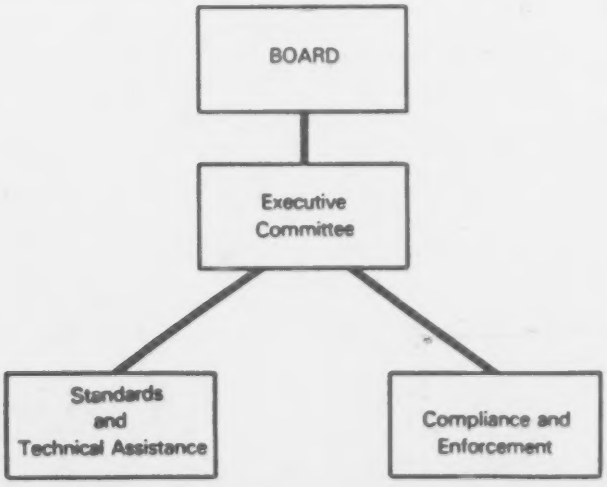
- o enhances the relationship between enforcement and education of standards
- o provides a correlation of technical assistance requests and reported violations
- o increases cooperation with Federal agencies
- o reduces duration of Board meetings

Disadvantages:

- o prevents all Board members from serving on a committee
- o eliminates Board oversight responsibility of the research and standards functions
- o eliminates a committee providing administrative oversight for the Board
- o violates Congressional desire to keep technical assistance and compliance and enforcement separate

OPTION TWO: Eliminate Research and Budget and Planning Committees. Combine Technical Assistance and Standards Committees. Maintain the Executive Committee and have it assume the Budget, Planning, and Research function for the Board. Maintain the Compliance and Enforcement Committee. (See Figure IV-3)

FIGURE IV-3
OPTION TWO



Due to the decreasing emphasis on research, there is no need for an entire committee to monitor research contracts and establish research priorities. The Executive Committee could assume the Board's research, budget, and planning functions which would eliminate the need for separate Research and Budget and Planning Committees. By combining the Standards and Technical Assistance Committees, there should be a closer relationship between the requirements established by the Board and the technical assistance provided to assist in application of these standards. The size of the committees would remain the same, with three Federal and three public members on the Executive Committee and four Federal members and four public members on each subject matter committee. This would allow for each Board member to serve on a Committee, with the exception of one public member. The Chairperson or Vice-Chairperson position occupied by a public members could serve as a ex officio member of the Executive Committee. It is not recommended that the size of the committees be increased.

Advantages:

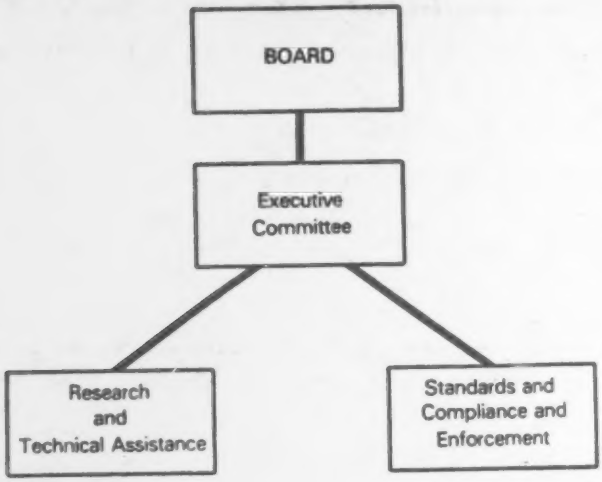
- o provides a closer relationship between standards and education of the standards
- o separates technical assistance and compliance and enforcement
- o increases dissemination of standards
- o reduces duration of Board meetings
- o maintains administrative oversight of the Board
- o assigns functional responsibility to Executive Committee

Disadvantages:

- o Number of issues to keep the Compliance and Enforcement Committee busy is reduced.
- o Research, planning, and budget functions in the Executive Committee may be overwhelming.
- o Research is technical, the Executive Committee should provide administrative oversight.
- o One public member would not be able to serve on a committee.

OPTION THREE: Eliminate Budget and Planning Committee. Combine Technical Assistance and Research. Combine Standards and Compliance and Enforcement. Have the Executive Committee assume the Budget and Planning Committee functions. (See Figure IV-4)

FIGURE IV-4
OPTION THREE



By combining the Research and Technical Assistance Committees, research conducted and/or collected by the Board could be readily transferred for effective technical assistance and information dissemination of the findings. Merging the Standards and Compliance and Enforcement Committees would allow the Board members involved in enforcement to have a better understanding of what they are enforcing. Further, they would have better understanding of the areas where standard's language is ambiguous and requires clarification to prevent future complaints. Rather than having the Executive Committee review the Budget and Planning Committee's recommendations and repeating the process of analyzing the justification for each expenditure, they could assume that responsibility and eliminate the existing duplication. This option would retain the Executive Committee and have it assume budget and planning functions and provide administrative oversight for the Agency. The size of the Executive Committee would remain the same, with three Federal members and three public members. The two subject matter committees would consist of four Federal members and four public members. This would allow for each Board member to serve on a Committee, with the exception of one public member. The Chairperson or Vice-Chairperson position when occupied by a public member could serve as an ex officio member of the Executive Committee. It is not recommended that the size of the committees be increased.

Advantages:

- o enhances the relationship between technical assistance and research
- o increases information dissemination of research conducted

- o reduces duplication/overlap of Technical Assistance and Research Committees
- o promotes a closer relationship between standards and enforcement
- o maintains a committee to provide administrative oversight
- o reduces unnecessary Executive Committee meeting
- o assigns functional responsibilities to the Executive Committee

Disadvantages:

- o Standards and compliance and enforcement may be too close.
- o One public member would not be able to serve on a committee.

RECOMMENDATION

After analyzing the options for proposed committee restructuring, option three is recommended.

IMPROVEMENTS

By reducing the number of committees, the Board meetings could be held on two days, instead of three. The fact that Board members frequently attend all committee meetings reduces the effectiveness of the "working" committee and dilutes the impact of the full Board meeting. By having committee meetings held simultaneously, the effectiveness of the "working" committee would increase. The purpose of a formal committee structure is to assist the Board in achieving the goals of the organization through the work of smaller, specialized groups. The Research/Technical Assistance and Standards/Compliance and Enforcement Committees could meet simultaneously on the morning of the first day. The Executive Committee could meet the afternoon of the first day and the full Board meeting could be conducted the second day. For those Board members available to spend an additional day in Washington, the third day could be spent in discussions of pertinent issues with the Board staff.

Many advantages are seen for implementing a streamlined committee structure, they are as follows:

- o Small groups are able to specialize in their knowledge of the project at hand.
- o Small groups allow for greater input from a select group of individuals, though input does not have to be limited to the small group.
- o Individuals making up the group usually have, or develop a special interest in the project and, therefore, have a greater commitment to the small group.

- Small groups allow greater participation, thus, increasing identification with the organization and its goals.
- Smaller groups have a greater chance of reaching consensus on the projects than the larger groups.
- More effective communication should occur since focused information will be shared.
- The accomplishment of goals through committees should allow each participant to participate in the organization.
- The accomplishment of goals through committees will provide a more specialized knowledge to the board, thus, facilitating the decision making process.
- The accomplishment of goals through committees will allow the board to spend more time on planning, developing policy, and other special issues.

Although fewer committees and reduced duplication should lead to increased effectiveness, there are many factors which a study like this can not address which do influence the effectiveness of committees, these include:

- leadership ability of the board
- cohesiveness of the group
- identification of the membership with organizational goals
- informal leadership
- identification with the goals of the small group may affect the identification with the goals of the larger organization
- level of knowledge of individual members

Committee members should receive an explanation of their role and responsibilities and relationship with the committee staff liaison. The success of the organization is largely dependent on how well the committees function and work with the Board and each other. The first committee meeting should be considered just that, the first of a number of programs or activities that help the committees and members to grow and develop in an effort to achieve the goals of the organization.

V. BOARD MEETING PREPARATION/CONDUCT

Currently, the staff spends the majority of their time preparing for Board meetings. Consequently, the substantive work of the Agency suffers. Also, throughout the data collection phase of the study, numerous Board members commented on their frustration with the ineffectiveness of the Board meetings.

ORIENTATION

To prepare newly appointed Board members and to reinforce the role of established Board members, the Board orientation now provided needs to be expanded. Currently, all new Board members are provided with an "Orientation Book" that has complete documentation and background materials on the Board's statutory responsibilities and its programs. Newly-appointed public members are brought to Washington for an orientation meeting with staff briefings. An enlarged orientation could include more in-depth sessions on the Federal budget, procurement, and personnel policies that are utilized by the Agency. There should also be the opportunity for an interchange between staff and the Board members to discuss their respective contributions to Agency effectiveness. This interchange could be through a briefing, skill matrix, and/or distribution of profiles of individual Board and staff members. To develop an understanding of the ATBCB mission, presentations should be given on accessibility issues. To serve as the vehicle for accessibility issue orientation, the Agency could consider developing a video tape presentation. This could be utilized not only for orientation, but also for presentations on the ATBCB and/or accessibility issues.

In addition to Board member orientation, a portion of the ATBCB staff's new employee orientation should continue to include Board meeting attendance (where the individual is introduced to the Board members), should provide an explanation of the Agency's mission, and an introduction to accessibility issues. This should increase the level of staff commitment, which should ultimately increase productivity.

It must also be realized that Board and staff orientation and training is not a one-shot effort. It should be an ongoing and continuous activity. An ongoing program should be developed to address the needs of the organization. This could be accomplished by identifying skill requirements of the Board members and conducting periodic skill development presentations at the Board meetings to allow the Board members' tenure on the ATBCB to be a developmental experience.

AGENDA PACKET

Between Board meetings, the staff devotes the majority of its time compiling a voluminous agenda packet. Although 73 percent of the Board members who responded to the survey indicated satisfaction with the agenda packet and 64 percent approved of its size the amount of staff resources devoted to agenda packet production is excessive.

Two proposed options for realigning Board and staff would entail establishing three committees which would include: the Executive Committee;

the Research and Technical Assistance Committee; and the Standards and Compliance and Enforcement Committee. The proposed staff organization would mirror the Board committee composition, thus establishing one committee liaison per unit and each unit would be responsible for the development of the information for its respective committee's agenda packet.

The staff would be responsible for day-to-day activities which relate to their committee's functions and would brief respective committee members on relevant events at Board meetings. This approach would afford Board members more time to devote to formulating policies. Additionally, agenda packets would be tailored to each committee's functions and would include a one or two page summary of the entire Board agenda. Committee summaries would be prepared and shared with the entire Board for the Board meeting.

TRAVEL

The process utilized for making Board members' travel arrangements was an issue that the study team was asked to review. Consequently, a question on the issue of travel arrangements was incorporated into the Board member survey. Overwhelmingly, the respondents stated that they were satisfied with the process. Although this is an area that was causing some difficulty in the past, the process seems to be operating much better at this time.

The current process for arranging Board member travel for attendance at Board meetings begins with the negotiation of a contract with local hotels. Currently, the Board is utilizing two hotels, one of which is not accessible to disabled people. This duplication of hotels reduces the opportunity for interaction between the public Board members, requires additional work by the staff, and gives the appearance of contradicting the ATBCB's mission.

The process utilized for making travel and lodging arrangements begins five weeks before each Board meeting. At that time, the staff responsible for travel verifies the reservations with the hotels and makes arrangements for special equipment requirements. Board members are also contacted to identify what travel advances are required. The necessary paperwork is then processed. The travel orders are now being entered into the word processing system, which has expedited the paperwork flow considerably. However, the frequent internal policy changes regarding preparation of travel orders creates confusion for the staff preparing paperwork.

The next step in the travel process occurs approximately three weeks before each Board meeting. At that time Board members are contacted to discuss schedule requirements. The management analyst who coordinates the travel arrangements refers to their previous schedule and provides each Board member with the opportunity to select that schedule or incorporate any

required changes. The travel agency is then contacted and if there is a flight that corresponds with the Board member's schedule, reservations are made. If flight availability is limited, the Board member is consulted about the flights available and an acceptable flight is selected. All flights are confirmed with the travel agent and a copy of the itinerary is forwarded to each Board member.

There has been some interest in exploring the possibility of contracting out the travel arrangement process. Considering the relatively small number of travel arrangements to be made, the cost of contracting out is prohibitive. Additionally, the contract and activities of the private sector travel agency would continue to require staff time. Contracted services, it seems, would only serve to create confusion for the Board members. They would not know whom to contact for scheduling and special equipment requests.

The staff members interviewed regarding the travel arrangement process stated that the Board member travel is not taking an inordinate amount of time. However, a problem exists because the management analyst who makes these arrangements is also expected to process travel forms for all staff travel. This additional task is being eliminated. An internal procedure is under development to be published and distributed to all staff. Individual travel orders then will be filled out by staff. Only if the staff had a specific problem, would the management analyst become involved.

BOARD MEETING CONDUCT

In the ATBCB's Statement of Organization and Procedures (SOP) it states that meetings should be conducted by utilizing parliamentary procedure as stipulated in Robert's Rules of Order with only a few delineated exceptions. However, after attending the September Board meeting and reviewing the comments on the Board member and agency liaison surveys, it was evident that there is much frustration with the limited and sporadic use of parliamentary procedure. Many deviations from the agenda and public personal attacks on the staff could be stopped through effective use of parliamentary procedure. Although the Board has a basic understanding of Robert's Rules of Order, perhaps a refresher briefing should be presented at the Board orientation and/or a Board meeting.

In addition to a refresher session on parliamentary procedure, there are other areas of Board member skill development that could be incorporated into the Board's agenda. If the Board identifies a specific need for additional expertise in some area, a specialist could be invited to make a presentation. This would allow the Board members' tenure on the ATBCB to serve as a growing and developing experience both professionally and personally.

FEDERAL AGENCY PRESENTATIONS

Some of the public members and staff seem to have an underlying mistrust of the Federal members. There is the perception that the Federal agencies are not committed to the issue of accessibility. However, as stated by the Federal staff liaisons, there are a lot of accessibility problems that are remedied by the agencies before they ever come to the attention of the ATBCB. Periodic presentations by the Federal agencies on the subject of accessibility and their respective agency's commitment to barrier removal should help to reduce this mistrust.

ATTENDANCE

The poor attendance of the Federal Board members at the Board meetings decreases the Board's ability to work together toward a mutually agreeable goal. This increases the existing level of distrust and creates the perception that they are not committed to the mission of the ATBCB. However, it should be noted that the Federal members not in attendance, generally have active staff liaison participation.

The following table depicts attendance records of Federal Board members for 17 meetings conducted from March 1984 to May 1987.

TABLE V-1
Federal Board Members'
Meeting Attendance

AGENCY	MEETINGS ATTENDED	PERCENT
Department of Justice	17	100
U.S. Postal Service	17	100
Department of Education	14	82
Department of Transportation	11	65
General Services Admin.	8	47
Veterans Administration	4	24
Department of Labor	4	24
Department of Health & Human Services	1	6
Department of Interior	0	0
Department of Housing and Urban Development	0	0
Department of Defense	0	0

The attendance information does not properly reflect the agencies' commitment to the ATBCB. Due to the legislative requirement that the Federal members be Executive Level IV or above, there are numerous competing demands on these individuals and when they are not able to attend, the agency is generally represented by staff members. However, these individuals are not able to vote and consequently, either the agency does not vote on issues discussed, or their vote is decided by proxy.

Data indicates that 64 percent of the Federal Board members had less than a 50 percent meeting attendance record. In comparing 11 Federal Board members attendance with the 12 public members, data show that one public member attended 65 percent of the meetings, another attended 76 percent, and the other 10 public members attendance records ranged from 82 to 94 percent during the same period.

In addition to implementing the recommendations that committee and Board meetings be reduced from three to two days, there are two options which could be considered in addressing the absenteeism issue. One is that the Chairperson could convene an ad hoc committee to examine the policy which requires Federal officials to be Executive level IV or higher. Reducing the pay grade requirement would afford key officials the opportunity to select other management officials for Board membership. Such a change would require an amendment to current legislation.

Another option is that Federal Board members permit Federal liaisons to attend committee working sessions with staff to develop background information for formulating policies. Board committees would then convene to discuss and finalize proposed policies that would be presented to the full Board. If the Federal member were briefed prior to the full Board meeting, he or she could be prepared to vote on issues presented.

TEAM BUILDING

A number of issues foster the creation of factions which limit the effectiveness of the Board. Before the Board can be successful in the formulation of effective policy to execute the mission, there must be a renewed commitment to the Agency and from that commitment the desire to work together toward the ultimate Agency goal of furthering accessibility.

RECOMMENDATIONS

1. Improve the Board member orientation to include: an interchange of qualifications with one another and the staff; an explanation of the Federal budget, procurement, and personnel policies and processes; and a presentation on accessibility issues.

2. Develop a video presentation on accessibility issues that could be utilized for Board member orientation, ATBCB presentations and various exhibitions on accessibility.

3. Tailor agenda packet to each committee's function and distribute the complete committee agenda only to committee members. By aligning the staff to mirror the Board committee structure, each staff unit would be responsible for

one committee agenda, rather than agenda production work being distributed throughout the entire staff.

4. Committee liaisons should be prepared to orally brief the committee on the background of each of the items to be addressed in committee.

5. Committee chairperson should brief the entire Board on committee activity at the full Board meeting.

6. Present only a brief summary of the committees' agenda to the entire Board. Only committee members would receive the detailed committee agenda material.

7. Clarify the Board member travel arrangement procedure in writing to increase consistency and understanding by the staff involved. This policy should also stipulate who has the authority to oversee the travel arrangement process.

8. Have all the public Board members stay in one accessible hotel. This would reduce the duplication of having to confirm with two hotels and increase opportunity for interaction between the Board members. For the Board to support a hotel that is inaccessible appears questionable.

9. Conduct a parliamentary procedure briefing or session for the Board members as part of the initial orientation and offer periodic refresher training to Board members. Increased use of parliamentary procedure will improve the level of discussion by preventing lengthy deviations from the agenda and public personal attacks on individuals.

10. Identify skill requirements of the Board members and conduct periodic skill-development presentations at the Board meetings to allow the Board members' tenure on the ATBCB to be a developmental experience.

11. Reduce the number of committees to decrease duplication, prevent communication breakdown, and shorten the duration of the Board meeting from three days to two.

12. Increase Federal agency participation at Board meetings by inviting the member agencies to periodically make presentations on what their agency is doing in the area of accessibility.

13. Increase personal cooperation among the Board members. This could be accomplished by increased informal interaction and a recommitment to the Agency's mission.

VI. STAFF ORGANIZATION

CURRENT ORGANIZATION

The 26-member staff supervised by the Executive Director is composed of four units: the Office of the Executive Director, the Office of Administration and Management, the Office of Technical and Information Services, and the Office of the General Counsel. With the exception of the General Counsel, the staff is selected by the Executive Director. Although the Executive Director supervises the General Counsel, he or she is nominated and selected by the Chairperson. For a detailed explanation of the staff's functional responsibilities and an organization chart, refer to Chapter I.

FINDINGS

There is an excessive number of layers of review for staff work. This is in part due to the over-structured organization of the Agency. As indicated by Figure I-2, the number of blocks, representing different portions of the staff organization, visually depicts the excessive fragmentation and layering within this organization. The basic principle of a small organization is to keep it as simple as possible. The issue of coverage is particularly crucial in a small organization. Under normal circumstances an employee is out of the office more than one-third of the time. A small organization must have the flexibility and cross-training to allow staff to fill in for one another.

It is also not clear who has review jurisdiction over certain aspects of staff work. The executive secretariat function of reviewing documents for format and punctuation is in the Executive Secretary's position description; however, this individual is not being effectively utilized in this capacity. This individual could also become responsible for all Board member correspondence to reduce confusion over who is responsible for this task.

Staff management, including the Executive Director and each of the unit Directors, has a problem delegating assigned tasks to subordinates. All need to learn the very difficult management skill of letting workers work and managing the work performed by subordinates, rather than "doing" it or becoming overly involved in the minute details of the operation. An example of this problem is the number of revisions made by the Executive Director after staff writing has been reviewed by lower level supervisors. Revisions should be kept to a minimum and written guidance on writing preferences should be issued.

Some of the staff are very committed to the mission of the Board. Others do not know what the mission is. Some existing staff, and all new

staff, need to receive an orientation on what the Agency does and how it pursues the accomplishment of its mission. Several of the new staff members have not attended any Board meetings and that makes it very difficult for the staff to have any sense of mission when they are not given the opportunity to see how their work product is utilized. One staff member told the study team that she spends all her time preparing agenda packets and she does not even know what happens at the Board meetings. Perhaps attendance at a Board meeting should be part of the orientation for all new employees.

The staff disagrees with the Board's decision that staff cannot attend Board meetings. Although it would be disadvantageous to have the office close up entirely during each Board meeting, selected staff should be allowed to attend meetings that they are particularly interested in, or have done a substantial amount of work to support. Attendance should be possible on a rotating basis, but not required. In addition to creating the opportunity for staff attendance at Board meetings, the Executive Director should hold full staff meetings immediately following each Board meeting to thoroughly communicate all items addressed that have any staff or program impact. This will allow the Executive Director to serve as a two-way liaison for the Board and the staff. Currently there is the perception that the Executive Director serves only at the whim of the Board. Although the Executive Director must meet the expectations of the Board, she must also serve as a representative for the staff to present and defend their ideas at Board meetings.

There is also a lack of cooperation and a team concept within the staff. The units are entirely too rigid. Staff cannot speak to co-workers in another unit without going through the "proper channels." There is also a lack of willingness to share resources among units and a heavy dependence on written communication. An Agency as small as the ATBCB should be able to communicate informally and not feel compelled to document everything. There is wonderful potential for comradery and skill development in this small Agency. To assist in fostering team attitudes, there should be issues that cross unit lines which could be discussed and resolved in a project management atmosphere. These activities could be dealt with through a task force, a project team, or an ad hoc committee. These issues could be addressed on an intermittent basis, routinely received and requiring a few hours of staff time, or of such import that they receive full-time dedication for a short time. The opportunity to work on a project could also serve as a job enrichment activity. The assignment would assist in increased morale by recognizing and utilizing staff expertise.

To increase a spirit of cooperation, there needs to be increased information sharing among staff. The staff needs to recognize the fact that they are mutually dependent upon one another and must freely share information. An information sharing mechanism needs to be developed and

implemented. This could be in the form of a routing slip, where items that may be of some utility to another staff member are routinely routed to that individual, or where items of general concern are routed to all staff.

Some staff were promoted to management positions without sufficient management training and/or the preparation of an individual development plan to allow for growth as a manager. There needs to be a commitment to provide proper training for individuals currently in management positions and recognition that such training is necessary for effective management within the Agency.

Because the Agency is so small, staff members do not have co-workers holding similar positions. This creates professional dissatisfaction due to the lack of peers with whom to share professional ideas or communicate frustrations. The implementation of project teams and task force organizations to work on ATBCB issues would help alleviate this isolation. Identification with appropriate professional organizations or involvement with groups from other agencies sharing common interests should also help alleviate this problem.

There needs to be equity in how rewards are distributed. For example, the space allocated to individuals should approximately coincide with their seniority or some other measurable criteria and there should be some consistency in the amount of flexibility allowed regarding work schedules--time off, compensatory and/or overtime, and lunch hours. There is the perception that these benefits are distributed inequitably for subjective reasons. This contributes to morale problems, which, in turn, adversely affects productivity. Perhaps an office memorandum on work schedules could be published and followed.

The current staff organization has numerous problems that are symptomatic of the need for reorganization. Those symptoms include the following:

Lines of Accountability and Responsibility: The lines of accountability and responsibility do not coincide, particularly with the Office of Administration and Management (OAM) functions. What happens in OAM has a profound impact on the the Board members and its functions cross all unit organizations. The Director, OAM, has no line authority over the other unit heads, and there is some resistance to following through with her directives. In the past there has been a lack of responsiveness and a breakdown of information at the OAM level, and the Executive Director has had limited control over OAM functions. To allow the Executive Director to have more control over OAM functions, the study team recommends that the current

Director, OAM/Budget Analyst, the Administrative Officer, and the Management Analyst be moved into the Office of the Executive Director.

Ambiguous Positions: There is staff confusion over the Deputy Director and Deputy General Counsel positions existing within the separate units. The Deputy Directors are not functioning as first line supervisors, but at times they do create an additional layer of review. There are inconsistencies in the amount of information communicated to the Deputy Directors and, when they serve as Acting Director, they are not always as informed as expected.

Too Many Bosses: There is an unclear understanding of who is the staff's boss. Sometimes the Board members contact the staff directly to request that tasks be performed and sometimes they go through the Executive Director and/or the Unit Heads. Many of the staff interviewed stated that they often feel as if they have 23 bosses and they get conflicting messages from each one and that makes it very difficult to know what direction to go. The Executive Director is given the authority and responsibility to set staff priorities and the Board members should respect that delegation and direct all staff task requests through the Executive Director. It would then be her job to assign tasks to appropriate staff, update Board members on staff progress, and tell Board members when the staff is unable to fulfill the request.

Inaccurate Position Descriptions: Tasks assigned to staff do not correspond to the position descriptions they have been given. This creates confusion and frustration by the staff when they know their performance will be evaluated on the elements in their position description and then are not given the opportunity to work in the same areas they are being evaluated on. The performance ratings and the level of performance do not seem to coincide. The grade level and the complexity of the tasks assigned do not coincide. This has led to an employee morale problem and an excessive amount of free time for some staff. The staff needs to be given the opportunity to work within the scope of their position descriptions. If the tasks that need to be conducted do not coincide with the existing position descriptions, then more accurate position descriptions need to be developed. Once the staff and the performance evaluator have a clear understanding of what is expected of each of them, the relationship between expected performance and actual performance should become closer.

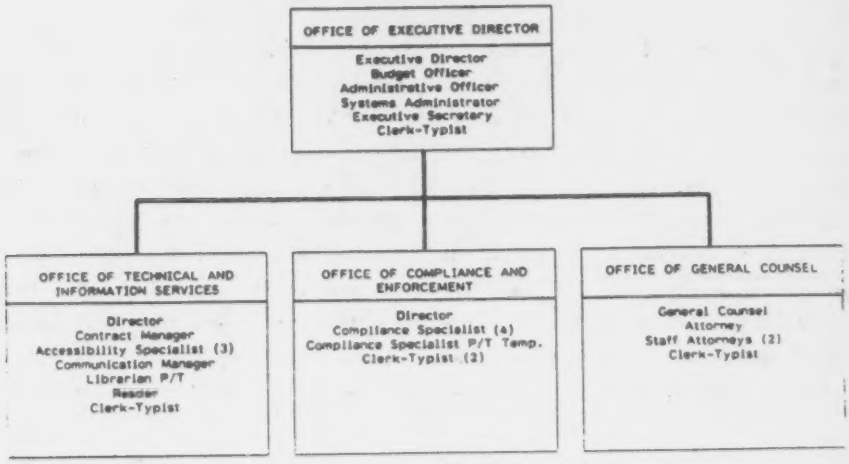
Inequitable Workload: Currently the workload is not equitably distributed. The Compliance and Enforcement staff has a very substantial workload, while some employees have time to take excessively long lunch hours. Some also commented that they try to make one or two tasks last an eight hour day.

PROPOSED ORGANIZATION

The need for reorganization is imperative. All proposed staff changes would result in a noncompetitive reassignment and no adverse action involving the current employees is envisioned with the proposed organization. The recommended organization is displayed in Figure VI-1.

FIGURE VI-1

Proposed Staff Organization



The proposed organization would decrease the percentage of staff devoted to overhead from 63 to 52 percent. By combining positions with similar functions, there would be the possibility of freeing more staff positions for compliance and enforcement functions. This proposed organization would also reduce the layers of review, clarify lines of authority, improve coordination and communication, more equitably disperse the workload, and provide an increased emphasis on compliance and enforcement.

The Office of Executive Director would assume responsibility for all Agency-wide management, administrative, and support functions currently maintained by individual units, e.g., administrative and complaint tracking functions. The office would provide overall direction and supervision to the staff.

The Office of Technical and Information Services would assume the research function for the Agency. This unit would serve as a technical and information resource for the Agency and work with Federal agencies on identifying common problems and developing recommended solutions. Specific functions would be to respond to requests for information on accessibility and

to develop and oversee production of Agency publications and reports, including technical assistance bulletins and the quarterly newsletter.

The Office of Compliance and Enforcement would be responsible for all phases of complaint processing. Due to the Board's desire to give increased emphasis to the issue of compliance and enforcement, it should be broken out as a separate unit to increase the visibility of the compliance function. The staff would be responsible for the timely processing of complaints received by the Agency. The Director, Compliance and Enforcement would have signature authority on all complaint letters processed in the Office of Compliance and Enforcement.

The Office of General Counsel would serve as the legal services staff for the Agency. This unit's functions would include responsibility for regulatory and legislative activities, provision of formal and informal legal advice and counsel to the Executive Director and Board, and representation of the Agency in litigation and other legal proceedings.

IMPLEMENTING THE REORGANIZATION

Having presented the general objectives and the specific role each staff unit will assume with the proposed organization, the following will provide a detailed explanation of what changes should occur to modify the existing organization to accommodate the implementation of the proposed organization. Each unit will be presented listing staff titles, cumulative full time equivalent employee (FTEE), specific personnel related changes, and detailed advantages and disadvantages of the proposed organizational change.

The Office of Administration and Management (OAM) would be eliminated and existing staff would be relocated to other organizational units. The administration and management functions would be assumed by the Office of the Executive Director.

CURRENT ORGANIZATION	PROPOSED ORGANIZATION
Office of Administration and Management	**Office of Administration and Management**
Director/Budget Officer Deputy Director/Contract Manager Communication Manager Administrative Officer Management Analyst Clerk-Typist	Eliminate Unit
FTEE: 6	FTEE: 0

CHANGES

1. Transfer and modify Director/Budget Officer position to the Office of the Executive Director.

2. Transfer and modify the Deputy Director/Contract Manager position to the Office of the Executive Director.

3. Transfer and modify the Communication Manager position to the Office of Technical and Information Services.

4. Transfer and modify the Administrative Officer position to the Office of the Executive Director.

5. Eliminate Management Analyst position.

6. Transfer the Clerk-Typist position to the Office of Compliance and Enforcement.

Advantages:

- o reduces the confusion created by a unit with no line authority having responsibilities that cross all units
- o reduces overhead
- o contributes to reducing the over-structured organization of the staff

Disadvantage:

- o increases Executive Director's span of control

The Office of the Executive Director (OED) would assume responsibility for all broad area Agency functions. The current Research Director position and Program Analyst/Interpreter position in OED would be eliminated. To create a line relationship between the administrative and management functions that affect all units, the administrative and management functions should be relocated to the Office of the Executive Director. The Budget Officer and Administrative Officer would continue to manage the administrative requirements for the Agency, under the direction of the Executive Director. The Systems Administrator position would be responsible for getting the automated complaint system operational, maintaining the data base, generating compliance and enforcement reports and assisting staff with systems problems once the networking equipment is purchased. Two Clerk Typists would remain in OED to support the administrative and management functions and provide clerical support for the Executive Director.

CURRENT ORGANIZATION	PROPOSED ORGANIZATION
Office of Executive Director	**Office of Executive Director**
Executive Director	Executive Director
Research Director	Budget Officer
Interpreter/Program Analyst	Administrative Officer
Executive Secretary	Systems Administrator
Clerk-Typist	Executive Secretary
	Clerk-Typist
FTEE: 5	FTEE: 6

CHANGES

1. Eliminates the Research Director position.
2. Eliminates the Interpreter/Program Analyst position.
3. Creates the Budget Officer position in OED.
4. Creates the Administrative Officer position in OED.
5. Creates the System Administrator position in OED.

Advantages:

- o places responsibility for directives that cross all units in an office with line authority over the other units
- o increases Executive Director control over OAM functions which have a profound impact on the Board members

Disadvantages:

- o increases Executive Director's span of control

The Office of Technical and Information Services (OTIS) would be slightly modified. The Divisions of Technical Specialist and Information Specialist would be eliminated and the unit would function as the Office of Technical and Information Services. The Deputy Director position would become the Contract Manager position. The Communication Manager from OAM would be transferred to OTIS to serve as the Publication Specialist and the Publications Specialist position would be converted to a Compliance Specialist GS 7/9/11.

CURRENT ORGANIZATION	PROPOSED ORGANIZATION
Office of Technical and Information Services	**Office of Technical and Information Services**
Director, Office of Technical and Information Services	Director, Office of Technical and Information Services
Clerk-Typist	Contract Manager
	Accessibility Specialist (3)
Technical Specialist Division	Communication Manager
Deputy Director/Contract Manager	Librarian (part-time)
Technical Specialist/Transportation	Reader
Technical Specialist/Architecture	Clerk-Typist
Reader	

Information Specialist Division

Publications Specialist
Library Assistant (part-time)

FTEE: 7.5 FTEE: 7.5

CHANGES

1. Eliminates the Technical Specialist and Information Specialist Divisions.
2. Eliminates the Deputy Director position.
3. Creates the Contract Manager position.
4. Eliminates the Publication Specialist position and has the Communication Manager assume these duties.
5. Creates the Communication Manager position in OTIS.
6. Creates an additional Accessibility Specialist position.
7. Changes position title of the Architectural Barriers Specialist and the Transportation Specialist positions to Accessibility Specialists.

Advantages:

- o decreases overlap between the two divisions of information and technical services within OTIS
- o relocates the Communication Manager in the office where the position will have access to research and other technical information that should be published and distributed to the public
- o eliminates the confusion caused by the role of the Deputy Director
- o increases flexibility in utilization and recruitment for accessibility specialist positions

Disadvantages:

- o increases the Director of OTIS's span of control, due to the elimination of the Deputy Director position

The Office of Compliance and Enforcement (OCE) which is now a division in the Office of General Counsel would become a separate unit. The Director, OCE, should report directly to the Executive Director and reduce the layers of review that are currently slowing up the complaint process. The Law Clerk position would be converted to a Compliance Specialist position GS 7/9/11. The Research Director position would be converted to a Compliance Specialist position GS 7/9/11. The Publication Specialist position in OTIS would be converted to a Compliance Specialist position GS 7/9/11. A Director, C&E position would be created. The Staff Attorney position would be transferred to the Office of General Counsel.

The Office of General Counsel (OGC) would consist of the General Counsel and three staff attorneys. One staff attorney position will function as the legal point of contact to the C&E unit and be dedicated to handling C&E issues when they become legal issues and are transferred to OGC. This will allow staff attorneys to have more time to address regulatory issues and legal issues of the Agency at large.

CURRENT ORGANIZATION	PROPOSED ORGANIZATION
Office of General Counsel	**Office of Compliance and Enforcement**
General Counsel Clerk-Typist	Director, Compliance and Enforcement Compliance Specialist (4) Compliance Specialist (part-time) Clerk-Typist (2)
Legal Services Division	FTEE: 7.5
Deputy General Counsel Staff Attorney	
Compliance and Enforcement Division	**Office of General Counsel**
Staff Attorney Compliance Specialist Staff Attorney	General Counsel Attorney Staff Attorney (2) Clerk-Typist
FTEE: 7	FTEE: 5 TOTAL FTEE: 12.5

CHANGES

1. Separates the Compliance and Enforcement Division into a separate unit.
2. Converts the Deputy General Counsel position to an Attorney position.
3. Transfers the Compliance and Enforcement Division attorney to the Office of General Counsel, to be designated as the Compliance and Enforcement legal point of contact.
4. Eliminates Staff Attorney position in Compliance and Enforcement Division.
5. Transfers the Clerk-Typist position in the Office of Administration and Management position to the Office of Compliance and Enforcement.
6. Creates Director, Office of Compliance and Enforcement.
7. Creates three Compliance Specialist positions GS 7/9/11.

Advantages: Office of Compliance and Enforcement

- o provides increased emphasis on the compliance and enforcement function
- o decreases layers of review for complaint letters
- o expedites the review process
- o increases the number of staff "dedicated" to the compliance and enforcement function

- separates C&E administrative and legal issues, provides an effective division to deal with complaints which escalate beyond the investigative stage
- provides increased clerical support for compliance and enforcement
- reduces the need for contracting out legal services
- reduces the cost for complaint processing by having GS 7/9/11 process complaints rather than higher grade attorneys
- reduces the confusion of multiple signatures and locating files that are created from contracting out legal services

Disadvantage: Office of Compliance and Enforcement

- increases the possibility of unfavorable legal ramifications through lack of comprehensive legal review

Advantages: Office of General Counsel

- reduces legal staff
- allows legal staff to have the flexibility to address a full range of legal issues, to include legal research regarding future directions of the ATBCB.
- eliminates the ambiguous Deputy General Counsel position

Disadvantage: Office of General Counsel

- the workload may be inequitably distributed, with one attorney designated as the compliance and enforcement legal point of contact.

SUMMARY

The proposed organization would decrease the percentage of staff devoted to overhead from 63 to 52 percent. Although this is a significant improvement, it could probably be made more efficient following a more sophisticated workload analysis. By further combining positions with similar functions, there would be the possibility of freeing even more staff positions for the compliance and enforcement function should that be required. The study team also recommends that further assessment of staff's position descriptions and assigned tasks be conducted. This proposed organization would also reduce the layers of review, clarify lines of authority, improve coordination and communication, within and between units, disperse the workload more equitably, and provide an increased emphasis on compliance and enforcement.

VII. COMPLIANCE AND ENFORCEMENT

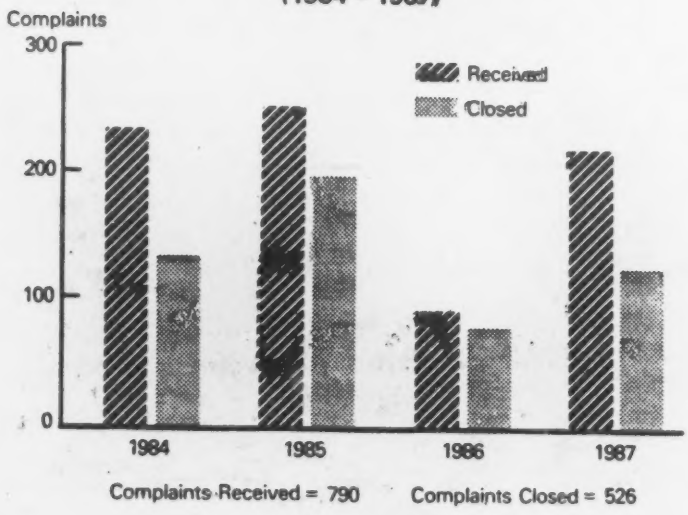
GENERAL

The issue of compliance and enforcement has been receiving increased attention since the Board has determined that this is an area that should take priority over other Agency functions. The following sections will discuss the compliance workload, study findings, the need for an automated complaint tracking system, and compliance and enforcement management improvements.

WORKLOAD

The study team attempted to break down the workload by agency, state, status, and nature of complaint. However, after studying the lengthy complaint status report, it was determined that statistics from this status report would be misleading. However, ATBCB data shows that consistently since 1984 there have been more complaints opened in compliance and enforcement than the number of complaints closed. See Figure VII-1.

FIGURE VII-1
Complaints Received and Closed
(1984 - 1987)

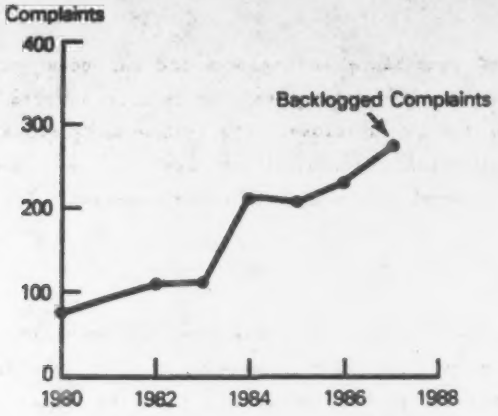


Note: As of November 13, 1987.

This has resulted in a sustained increase in backlogged complaints. Figure VII-2 is a graphic depiction of the trend of backlogged complaints.

FIGURE VII-2

Compliance and Enforcement Statistics

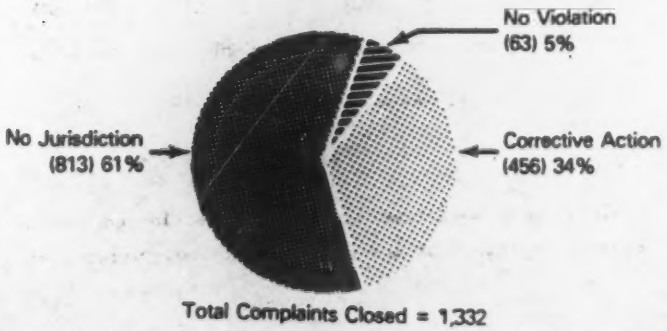


Note: As of August, 1987

Backlogged complaints are all complaints not resolved within the regulatory period. The backlog begins in 1980 with less than 100 cases. The fact that there is no point on the chart for 1981 does not mean that there was no backlog. It simply indicates that data was not available. The backlog steadily increases until 1987 where the backlog is recorded at 272 cases. As reported at the September Board meeting, 41 of the existing backlog are cases that were returned to active files following the Rose decision. This case affirmatively decided the applicability of the Architectural Barriers Act over United States Postal Service leased facilities. As depicted in Figure VII-3, the majority--61 percent of all cases closed--have been closed for no jurisdiction. The second highest percentage--34 percent--were closed for corrective action. These include the 11 citations issued since the creation of the Agency. The smallest section is no violation, with 5 percent.

FIGURE VII-3

Statistical Report of Complaints Closed
1977 - 1987



Note: As of August, 1987

FINDINGS

Recently, the Agency has depended heavily on the use of contracted legal services for complaint processing. The use of these services is very expensive and creates confusion for the staff and Federal agency liaisons. All letters drafted by the contracted attorneys are reviewed by the Executive Director. If these letters are found unsatisfactory, they are modified and retyped by an ATBCB clerk-typist and then mailed. Every person who drafts a letter for compliance and enforcement has the authority to use his or her name in the signature block. Although these individuals sign their names, the letters still must go through the excessive layers of review. Because the contracted attorneys are also able to use their names, there is much confusion for the Federal agency staff liaisons because they do not know where to send responses to the letters. The current organization is so over-structured that if the Compliance Specialist in the Compliance and Enforcement Division prepares a letter, it is subsequently reviewed at least four times.

The use of attorneys to process accessibility complaints is not the most effective and efficient use of personnel. The routine nature of complaint processing does not challenge attorneys. This appears to contribute significantly to the Agency's problem with retaining attorneys. In addition to the tedious reviews, the intimidating legal verbiage included in each form letter creates confusion for the Federal agency staff liaisons required to respond. The routine nature of the investigative stage of complaint processing would readily accommodate the use of Compliance Specialists GS 7/9/11 to process complaints up to the point where failure to comply becomes a legal matter. For example, by not requiring attorneys to review all complaints, the legal review of the 61 percent of the cases ultimately closed for lack of jurisdiction could be eliminated entirely. At that time, the complaint file can be transferred to an attorney for legal review. With the adoption of the proposed organization, the staff attorney who is currently in the Compliance and Enforcement Division of the Office of General Counsel would be relocated to the Office of General Counsel and would be designated as the compliance and enforcement legal point of contact. This arrangement would allow the Compliance Specialists in the Office of Compliance and Enforcement to confer with an attorney on any area that may be ambiguous to the specialist.

Another issue that surfaced throughout the interviews with the ATBCB staff is the underlying mistrust of Federal agencies. The staff stated that they felt Federal agency staff liaisons intentionally delayed information that is needed to continue processing complaints. When talking to the Federal agency staff liaisons, a different picture was painted. The staff liaisons stated that at times the deadlines imposed by the staff were unreasonable, many times solely because of the delay in the letter leaving the ATBCB office. Also, the ATBCB staff do not seem to understand the complexities of

some of the large Federal agencies with whom they are dealing. For example, when the United States Postal Service gathers data for a complaint received in their headquarters office, they must relay the request to the regional offices, and subsequently the district office, and eventually to the individual facility that has been cited in the complaint. The staff need to develop an understanding of the unique problems facing the respective agencies and the types of programs they have.

COMPLAINT TRACKING

Currently, the Compliance and Enforcement Division of the Office of General Counsel manually monitors all complaints. An inordinate amount of staff time is spent developing the cumbersome complaint status report. In addition, the manual tracking contributes to inaccurate record maintenance. This inaccurate record maintenance relates to the problem previously mentioned regarding the inadequacies of the current Complaint Status Report.

There have been some previous attempts at developing an automated complaint tracking system by the ATBCB; however, all efforts have been either prohibitively expensive, or the personnel were not available to maintain the data base. Staff from the Veterans Administration Office of Information Systems and Telecommunications met with the ATBCB Compliance and Enforcement staff on numerous occasions to assess their complaint tracking needs and equipment capabilities. The computer equipment available in the office and their proposed equipment purchases were discussed and it was determined that the equipment was adequate for the implementation of an automated complaint tracking system.

The ATBCB began the process of automating their complaint tracking system in May 1987. The process began by eliminating the time-share computer arrangement with Fairfax County, Virginia, purchasing the necessary personal computers to develop an independent tracking system, and hiring a programmer/consultant to develop data base management capabilities for four computer applications. These applications consisted of: a complaint tracking program, a mailing list system, library program, and an abstract maintenance program known as CARES (Codes and Abstracts Retrieval and Entry System). The data transfer from the time-share arrangement has been completed; however, the programmer was unable to deliver the programs on schedule, consequently, an automated tracking system has not been implemented to date.

The Compliance and Enforcement staff provided the system analysts with a list of complaint tracking needs. They stated that the complaint tracking system should be a relational data base with the ability to handle the current 1,400 complaint files, plus have the ability to increase in size, as needed. The complaint tracking system should be easy to use and capable of adding,

deleting, editing, displaying, or printing any complaint file. The staff stated that they would like to be able to sort and perform queries of the data base, by two or three fields on the same sort. Each record should contain the following:

- Complaint number
- Complaint status
- Jurisdiction
- Date opened
- Data closed
- Applicable standard
- Complainant's name
- Complainant's address
- Complainant's state
- Facility identification number
- Facility address
- Facility state
- Agency referred to
- Nature of complaint
- Standard code
- Disposition

A data base consisting of this information could generate the following reports:

- List of complaints by complaint number
- List of all open or all closed complaints
- List of complaints by state
- List of complaints by city
- List of all complaints about door, ramps, etc.
- List of all complaints referred to each agency, e.g. GSA, USPS, VA
- Print out of complete record or records
- List of all complaints by status
- List of all complaints by jurisdiction
- List of complaints by facility
- List of facilities by standard
- List of complaints by disposition

In response to concerns expressed regarding the capabilities of existing system software (R Base 5000) and the proposed hardware acquisitions, it was found that:

- Existing equipment coupled with the ongoing procurement of additional personal computers should satisfy the hardware requirements to support tracking and word processing functions for the ATBCB staff. The proposed network configuration should provide a sound environment to support the flexibility and redundancy required by the ATBCB staff.

- The R Base 5000 software selected as a platform to support applications development should accommodate most requirements. There are many alternatives to R Base 5000, but the system analysts saw no reason for switching to any of these alternatives. Should future requirements place unexpected demands upon the software, an additional data base product could be procured at a very reasonable cost.

Although the choices in software and hardware arenas seem valid, the systems analysts' principal concerns were with: (1) the implementation and long-term stability of this endeavor; (2) the applications developed in R Base 5000; and (3) the methodology being used to implement these applications.

There is a lack of dedicated and sufficiently trained staff to manage and maintain the hardware, communications network, and applications software. This is not to suggest that the personnel managing this project are not competent, but to identify the fact that they have other responsibilities. They are doing this aside from their normal functions and do not appear to currently possess the in-depth expertise required to manage this environment. The system to be adopted is beyond a stand-alone desk top computer supporting an individual, but an office automation system composed of application programs and off-the-shelf software running in a networked environment supporting the needs of an entire staff. A dedicated position filled by an Automated Data Processing (ADP) professional is necessary to provide the level of service and reliability required by the staff. This individual would fill the newly created Systems Administrator position in the proposed organization.

The quality and dependability of the application software (specific programs developed to support the user needs using R Base 5000) that is being developed appears to be adequate. The Complaint Tracking System (CTRACKS) is well suited to R Base 5000 and the contractor has done an excellent job of programming the system. However, the contractor duplicated the mainframe system as much as possible. This restriction prohibited the contractor from custom designing a system to meet the current needs of the ATBCB. The CTRACKS system, will track the information desired, but is cumbersome to use. Modifying the system and obtaining reports will be more difficult than if the system had been custom designed.

The systems analysts have seen only one of the four CTRACKS programs that are being converted from a mainframe to a personal computer environment for the ATBCB. However, staff representatives indicated that they are pleased with the label generation program that was provided by the contractor.

The systems analysts found no evidence of a formal plan to address the implementation of the applications systems, nor have individuals been identified to provide data entry support. Adequate training of personnel to support this system is a necessary task that has not been addressed. The contractor is far past the deliverable date for the remaining products and is unable to promise a firm delivery date.

The systems analysts concluded that if these issues were resolved before proceeding with the expansion of automated functions, the effectiveness and efficiency of complaint monitoring should improve.

COMPLAINT MANAGEMENT

The staff expressed concern with inaccurate complaint record maintenance. The problems with the complaint management system begin with a complaint being recorded in the complaint logbook and continues throughout the complaint processing stages. For example, when the complaint is recorded in the logbook the individual assigned the complaint is not recorded. This diminishes the accountability for timely complaint processing. The problem continues when the complaint is taken from the files for continued work. There is no system that effectively monitors who is in possession of the complaint file. This includes contracted legal services. An additional area of concern is the order in which the complaints are processed. Currently, the Compliance and Enforcement staff and the attorneys involved in complaint processing spend approximately two to three weeks between each Board meeting conducting a case review. At these reviews, each complaint case is physically reviewed, the status is recorded, and additional action required is recorded. These case reviews take an inordinate amount of staff time. Under this system, more time is spent determining what needs to be done to the case than is spent actually working toward its closure. Also, there are no internal operating procedures on how to enter the information on the complaint status report. This has resulted in inconsistent reporting, which leads to confusion when the complaint status report is reviewed.

RECOMMENDATIONS

1. Due to the significant number of cases ultimately closed for lack of jurisdiction, the initial verification of Federal funding that is pursued upon opening a complaint could be done with a telephone call and followed up with written verification to expedite the process.

2. Once Federal funding is confirmed, this information should be entered in an office log to serve as a resource for future jurisdiction questions of a similar nature regarding that facility.

3. With the proposed increase in compliance and enforcement staff, the use of complaint specialists rather than attorneys for routine complaint processing, and the installation of an automated complaint tracking system, the use of contracted legal services should no longer be needed. The need for these services should be reexamined.

4. The authority to sign compliance letters should be restricted to the Director, Office of Compliance and Enforcement, until the case becomes a legal issue. Once the complaint becomes a legal issue, the General Counsel should sign all correspondence.

5. The number of layers of review needs to be reduced.

6. Compliance Specialists rather than attorneys should be utilized for routine complaint processing.

7. Align the Compliance and Enforcement staff by agency. This would increase rapport and the level of trust with Federal agencies. This would also allow the Federal agency staff liaison to work with the same specialist. Increased familiarity should foster more informal contact between the two organizations which would expedite complaint resolution.

8. Create a Systems Administrator position to make the complaint tracking system operational. This will improve the quality of complaint monitoring, improve the readability and usefulness of the complaint status report, and reduce staff time spent manually tracking complaints and generating the compliance status report.

9. At the time the complaint is received, the number is assigned, and recorded in the logbook, the individual's name assigned to the complaint should also be recorded. This would increase accountability and provide a point of contact when inquiries are made about a specific complaint.

10. Utilize charge out cards when files are removed from the file.

11. Eliminate the use of lengthy case reviews.

12. Develop internal procedures for recording complaint information to increase consistency in complaint status reporting.

13. Delegate signature authority only to the Executive Director or Division Directors.

VIII. GENERAL AGENCY CONSIDERATIONS

NOTIFICATION OF BOARD MEETINGS

The Board meetings are not attended by individuals who should have an interest in the policies established by the Board. The staff, Board members, and Federal liaisons interviewed stated that they thought that the reasons for poor attendance were twofold: the Board has deviated from substantive policy issues; and insufficient notification of Board meetings has been provided. If the Board was to begin discussing issues that are more substantive, perhaps the public would be more interested. Currently, Board meeting dates, times, and locations are published in the Federal Register. Although this fulfills the statutory requirements of the Agency, perhaps the Agency should consider sending notices directly to disabled constituency groups.

BUDGETING

After observing the September Board meeting, it was apparent that several public Board members were not familiar with the Agency's budgetary process. Based on input from Board members and staff, public members expect the Agency's Budget Officer to disperse funds similar to the private sector, e.g., if funds are needed, the Budget Officer or Controller, could authorize these funds almost immediately. In the government, however, this process is more involved and time consuming. Small unplanned purchases may be accommodated on an expedited basis. Normally, however, funding requests are part of the Agency's yearly planning process and included in the Agency's annual budget. Disbursement within the ATBCB is always contingent upon funding availability and proper processing of paperwork through the General Services Administration.

The following highlights the Agency's budgetary process based on information obtained from the Agency's Budget Officer. The budget formulation process for the Agency begins approximately 16 months prior to the beginning of the current fiscal year. The end result is that budgets for three concurrent years are usually under consideration at one time. Following is a condensed overview of the Agency's budgetary process:

- o November - The Agency's Budget and Planning Committee develops a general budget plan.
- o March - Preliminary budget is formulated by the Budget and Planning Committee and forwarded to the Agency's Executive Committee for approval.
- o May - Preliminary budget is forwarded from the Executive Committee to the full Board for discussion.
- o July - Full Board votes on the budget.
- o September - Budget is transmitted to the Office of Management and Budget (OMB) for review.
- o October - Budget hearings are conducted at OMB on the Agency's budget.
- o January - Agency's budget, as approved by OMB, is submitted to Congress as part of the Administration's budget for the coming fiscal year.

Formulating and implementing the Agency's budget, which should include planning for short-and long-term funding decisions, is a cumbersome, but necessary, process. It may be appropriate for the Board's Chair and Executive Director to request the Budget Officer to provide in-service training on the budgetary procedures to current Board members and to each wave of new members.

PLANNING

To assist the Board in making critical short- and long-term planning decisions, numerous planning consultants are available. As the study team

explored possibilities for further planning assistance, several planning consultants were identified. Planning for the future includes examining whether existing planning processes are producing practical strategies for future activities. Strategic planning focuses on understanding the changes--events, developments, issues--that are occurring within and outside of the organization that can either seriously threaten or substantially benefit the organization. Since planning resources are limited, an organization needs to focus on a small number of these changes or issues and design strategies that prepare them to take advantage of opportunities and challenges.

An outside consultant should be secured to facilitate the design and implementation of strategic planning activities that address priority internal and external changes. These planning activities should involve public and Federal Board members and staff as well as others and have the additional benefit of building solid working relationships. Individuals who jointly participate in designing strategies for the future of their organizations usually forge a common commitment to their implementation.

LEGISLATIVE CONCERNS

Throughout the data collection phase of the study, numerous concerns and issues surfaced that would require legislative changes. Although the issues are beyond the scope of this management and organization study, a list of the issues raised is included as Appendix F.

RECOMMENDATIONS

1. Engage an outside consultant to guide the ATBCB through a long-term planning process and assist in developing the skills needed to conduct effective long-term planning on a continuing basis.

2. Provide training session to the Board members on the Federal budgetary process and specifically how it relates to the ATBCB.

3. Increase efforts to actively involve the Agency's disabled constituency.

APPENDIX A

ARCHITECTURAL AND TRANSPORTATION BARRIERS COMPLIANCE BOARD MEMBER SURVEY

These questions are designed to provide the information necessary to identify ATBCB Board Member perception of their role, identify problem areas and gather your suggestions on how the agency may improve its functions. If additional space is needed, you may respond on the back of the survey or attach additional paper as needed.

1. What do you consider to be the mission of the ATBCB?

2. What do you perceive as your role within the organization?

3. What do you consider to be the problem areas in the present Board and Staff organization?

4. Are there any problems that should be getting greater emphasis than they are in the present organization?

5. What would you like to accomplish that the present organization does not readily accommodate?

The following questions are designed to receive your input on the Board and committee structure.

1. In your opinion, is the number of subject matter committees currently operating:

a. too many ___ b. about right ___ c. too few ___?

If too many, which ones would you eliminate? If too few, what additional committees would you recommend adding?

2. In your opinion, does the Board meet:

a. too often ___ b. about right ___ c. not often enough ___?

How often would you recommend?

3. In your opinion, is the committee size:

a. too large ___ b. about right ___ c. too small?

What size would you recommend?

4. Would you like to have each Board meeting dedicated to a specific topic that would receive special emphasis throughout the meetings? yes ___ no ___

The following questions are designed to obtain specific information on the services you need to operate as an effective Board member. Please provide as much detail as possible.

1. Does the current agenda packet provide you with the information you need for the Board and/or Committee meetings? yes ___ no ___

If no, what additional information would be beneficial?

2. In your opinion, is the current agenda packet:

a. Too Long ____ b. Just Right ____ c. Too Short ____

If too long, what would you recommend eliminating? If too short, what additional information would you like to see included?

3. Are you satisfied with the travel arrangement process?
yes ___ no ___

If not, how do you think it could be improved?

The following questions were designed to identify ways of improving coordination and communication between the staff and Board members.

1. Would you like to receive copies of documents or correspondence not now routinely distributed to Board members? yes ___ no ___

If yes, what additional information would you like to receive?

2. Is the Executive Director's Monthly Activity Report a useful communication tool? yes ___ no ___

If no, what specific changes would you recommend?

3. Are there any additional services that the staff could provide that would assist you being a more effective Board member?
yes ___ no ___

If yes, what services would you recommend?

4. Do you have any other suggestions for improving the ATBCB functions?

APPENDIX B

PUBLIC BOARD MEMBER TELEPHONE INTERVIEW GUIDE

These intial questions are designed to solicit your opinion of how the Board operates in a broad context:

1. In your opinion, how are goals set for the Board? Do you think the goals and purposes are clearly stated?

2. In your opinion, how are goals related to policy?

3. In your opinion, how would you characterize "good" staff implementation of Board policy? Is the staff meeting those expectations? If not, what could they do to improve?

4. In your opinion, what additional elements are needed to translate Board policies into effective programs and services?

5. What do you consider as the characteristics of "good" management? In your opinion is the Executive Director meeting these expectations? If not, what could she do to improve?

6. How do you think staff contributes to Board goal setting?

7. Do you think Board members and the staff share in policy making? If so, how?

8. It is a difficult balance when considering issues that should be managed by the Board and what should left to the staff, how do you think the Board's interest and time could best be utilized in the administration of Board policy while minimizing "interference"?

9. In your opinion, what are the respective contributions that should be made by the Board and staff to organizational improvement?

These questions are designed to assess the goverance and management of the AIBCB:

1. Do you know the Board's purpose and where it is going? In your opinion, what is the Board's purpose? If yes, how was that purpose communicated to you?

2. In your opinion, are the best tasks to accomplish the Board's goals being performed? If not, what should be done?

3. In your opinion, how well is the Board doing? Are the agency's programs and services effective?

4. Do you believe the Board is as efficient and economical as possible in accomplishing its goals? If not, how could they improve?

5. Do you think you are getting the best contribution from each Board Member? If not, how would recommend this effectiveness be improved to facilitate a more cooperative environment?

These questions are designed to assess Staff/Board performance and identify ways to improve cooperation:

1. In your opinion, what are the most important factors that contribute to positive Staff-Board relations?

2. As a Board Member, what do you expect from the Executive Director and Staff?

3. What do you suppose the Executive Director expects from the Board Members?

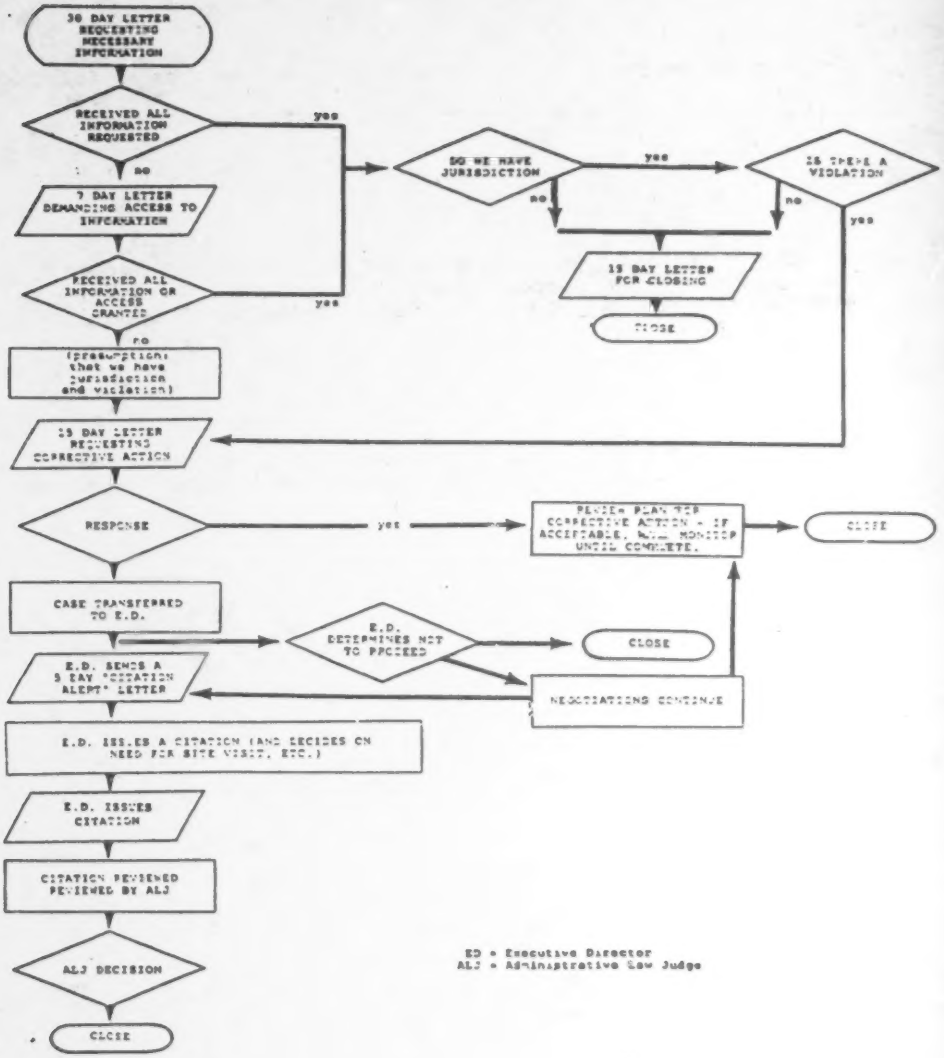
4. What do you believe are the most important sources of friction, both within the Board, within the Staff, and between the Board and Staff? How do you think they could be overcome?

5. In your opinion, does the Executive Director effectively communicate with the Board? If not, how could the Executive Director communicate more effectively with the Board?

Do you have any other ideas or suggestions you think should be addressed in this organization and management study of the ATBCB Board and Staff?

APPENDIX C

Complaint Processing Flow Chart



ED = Executive Director
ALJ = Administrative Law Judge

APPENDIX D

ARCHITECTURAL AND TRANSPORTATION BARRIERS COMPLIANCE BOARD LIAISON SURVEY

These questions were designed to obtain your input on how the level of coordination between the ATBCB and your agency could be improved to accomplish effective resolution of complaints filed with the Board under the Architectural Barriers Act of 1968.

1. How do you consider the coordinating efforts of the ATBCB and your agency in resolving complaints filed?

Excellent Good Fair Poor Other_____

2. How would you characterize the staff in coordinating with your office for complaint resolution?

Very Helpful Helpful Tolerable Hostile Other _____

3. How would you characterize the timeliness of ATBCB correspondence following filing of the complaint?

Quick Timely Sufficient Delayed Other _____

4. How would you characterize the content of the ATBCB correspondence in reference to complaints filed?

Excellent Good Fair Poor Other _____

5. Overall, how would you characterize your working relationship with the ATBCB?

Excellent Good Fair Poor Other _____

6. Do you have any suggestions on how the coordination between your agency and the ATBCB could be improved to allow for more effective and timely resolution of complaints filed with the Board? You may list your comments below or attach an additional sheet of paper.

APPENDIX E

RECOMMENDED READINGS

Board of Directors and Advisory Councils:

1. Collins, Majorie A.; James E. Mills, National Council on the Aging. Boards and Advisory Councils: A Key to Effective Management. 1979.

2. Forer, Lois B. "The Obligation of Board Members." Social Service Review, Vol. 30, No. 1 (June, 1963).

3. Hanson, Pauline L. and Carolyn T. Marmaduke. The Board Member--Decision Maker for the Nonprofit Corporation. Sacramento, California: Han Mar Publications, P.O. Box 6143.

4. Houle, Cyril O. The Effective Board. Association Press. 1960.

5. Judgment, Shiela B. "Participation, Leadership, and Expertise: Imbalance or In Balance?" Social Service Review, Vol. 48, No. 3. (1974).

6. Kramer, Ralph M. "Ideology, Status, and Power in Board-Executive Relationships". Social Work, 10, No. 4 (1965): 197-14.

7. Osborn, R. The Board and Advisory Council Member Handbook. Washington, D.C.: Education, Training, and Research Sciences Corporation, 1971.

8. Prouan, Keith G. "Board Power and Organizational Effectiveness Among Human Service Agencies". Academy of Management Journal. June, 1980.

9. Svara, James H. "Dichotomy and Duality: Reconceptualizing the Relationship Between Policy and Administration in Council-Manager Cities," Public Administration Review, 45 (January/February 1985), pp. 225-230.

10. Weber, Joseph. Managing the Board of Directors: The Greater New York Fund, Inc., 1975.

Management of Committees, Boards, Councils:

1. Bradford, Leland P. Making Meetings Work: A Guide for Leaders and Group Members. San Diego, California: University Associates, 1976.

2. Brown, D.S., The Management of Advisory Committees. Public Administration Review, #32, 1972, pp. 3349342.

3. Edson, Jean Brown. "How to Survive on a Committee". Social Work, May, 1977.

4. Green, Estill I. "The Nature and Use of Committees". Advanced Management, July, 1959.

5. International City Managers Association. Strategic Issue Management: Improving the Council-Manager Relationship. MIS 1986.

APPENDIX F

POSSIBLE LEGISLATIVE ISSUES

The following issues, gleaned throughout the data collection phase of the study would call for legislation. Although the study team does not necessarily endorse any particular issue, they are provided to facilitate discussions determining the future direction of the Agency.

1. Due to competing demands on the Federal members, the requirement that Federal members be of the Executive Level IV contributes to the poor attendance of the Federal members. It was recommended by several Federal liaisons, Board members, and staff interviewed that the need for such a high level official be reexamined.

2. Several Board members stated that the one-year term for the Chairperson is not long enough to establish consistency in Agency policy and direction.

3. Several Board members stated that the three-year appointment was not long enough to develop initiatives they were interested in establishing.

4. Several individuals expressed concern over the Federal agencies who are being monitored by the ATBCB serving as Board members. Their perception is that membership on the Board creates a conflict of interest.

5. The selection process for Board members was also questioned. The fact that many Board members have no affiliation with the disabled community or awareness of accessibility issues concerned many individuals interviewed.

6. One veteran service organization representative surveyed stated that the Board would be more productive if its size were reduced to five members.

The Architectural and Transportation Barriers Compliance Board
Management and Organization Study
One Year Later

BACKGROUND:

In May 1987, the Deputy Administrator for Veterans Affairs was elected to serve as the Chair of the Architectural and Transportation Barriers Compliance Board (ATBCB). In August 1987, he requested that the Veterans Administration's Office of Program Analysis and Evaluation conduct a management and organization analysis of the Board. In November 1987, the Board was briefed on the studies preliminary findings. In January 1988, the final report was issued and the Board subsequently made a series of decisions based on the report's findings that were voted on at the March, 1988 meeting. At that meeting, it was determined that a review of the implementation of the report's recommendations would be conducted one year later.

The attached charts provide a summary of the report's recommendations and the status of each.

DISCUSSION:

The ATBCB was created by the Rehabilitation Act of 1973. The Board serves as an independent federal agency to enforce compliance with the standards perscribed pursuant to the Architectural Barriers Act of 1968 and provide technical assistance on barrier-free facilities. The ATBCB is composed of 12 members appointed by the President from among members of the general public of whom six shall be disabled. The remaining 11 members shall be the head of the following departments or agencies (or their designees whose positions are executive level IV or higher):

(1) Department of Health and Human Services
(2) Department of Transportation
(3) Department of Housing and Urban Development
(4) Department of Labor
(5) Department of the Interior
(6) Department of Defense
(7) Department of Justice

(8) General Services Administration
(9) Veterans Administration
(10) United States Postal Service
(11) Department of Education

The ATBCB works toward providing accessibility for individuals with a disability. Because the veteran population constitutes a large portion of the disabled community, numerous Veteran Service Organizations have been keenly interested in the activities of the ATBCB.

BOARD/EXECUTIVE DIRECTOR RELATIONSHIP

The role and functions of a governing board for an agecny with an executive director to implement board policy is a complex and somewhat unique form of management. Consequently, there is much discussion on how the players in a board governance organization should play out their roles. For board policy and admininistration there should be both seperation and sharing of responsibility between the board and the staff at the same time.

RECOMMENDATION	STATUS
Develop a position description for Board members to clarify their roles and responsibilities.	To be developed by August, 1989. Draft will be available for comment.
Clarify authorities and delegations between the Board and staff. The current authorities and respsonsibilities as stated in the Federal Register should be reviewed and modified as appropriate.	The draft revision for comment will be available July, 1989.
Identify a consultant with an expertise in board/manager relationship to meet with the Board and conduct exercises that will lead to an improved relationship.	No longer needed. Executive Director and Board have a better understanding of their roles.

Provide the Executive Director the opportunity to attend advanced management training. This would allow him to be better suited to accomodate the needs of staff and Board members. This training should include programs emphasizing the unique characteristics of board governance and staff performance management.	The Executive Director will work with the Chairman to develop an Individual Development Plan.

BOARD ORGANIZATION

Numerous options for proposed committee restructuring were analyzed. The recommended option would retain the Executive Committee and have it assume budget and planning functions and provide administrative oversight for the Agency. In addition, the propsed organization would combine existing committees and consist of two subject matter committees. The Board adopted an organization similiar to the one recommended. The functions of the subject matter committees were different than those recommended. Overall the reduction in the number of committees has allowed Board meetings to be held in two days, rather than three, reduced demands on staff, and improved the effectiveness of the meetings.

RECOMMENDATION

Currently there are no clear functions for the Executive Committee. Further consideration should be given to the role of the Executive Committee. It is suggested that each committee develop a functional description to be adopted by the Board.

STAFF ORGANIZATION

The proposed staff organization was adopted and subsequently slightly modified. Organizational design is not an exact science and the organization of an Agency should be thought of as a dynamic process.

RECOMMENDATION

Although the reorganization has reduced the layers of review, lessened confusion, and improved communication, the need for additional modifications exists. Each staff unit should develop a functional description. Additionally, each unit should review its processes and the Executive Director should issue a directive to establish consistent Agency procedures.

BOARD MEETING PREPARATION/CONDUCT

At the time the initial study was conducted, the staff spent the majority of their time preparing for Board meetings. A number of recommendations were made that would allow the staff to devote more time to the substantive work of the agency. The status of each is listed below:

RECOMMENDATION	STATUS
Improve the Board meeting orientation to include: interchange of qualifications with one another and the staff; an explanation of the Federal budget, procurement, and personnel policies and processes; and a presentation on accessibility issues.	The level of respect between Board members is improving. The Executive Director has started training for Board members on the Federal environment. Also, individual Board members are preparing presentations for the Board on their area of expertise.
Develop a video presentation on accessibility issues that could be utilized for Board member orientation, ATBCB presentations, and various exhibitins on accessibility.	Incorporated into the Public Affairs Plan and should be completed in 1991.

RECOMMENDATION	STATUS
Tailor agenda packet to each committee's function and distribute the complete agenda only to committee members. By aligning the staff to mirror the Board committee structure, each staff unit would be responsible for one committee agenda, rather than agenda production work being distributed throughout the entire staff.	The new agenda packet has been significantly streamlined. The Board members seem pleased with the changes. The burden on the staff has been dramatically reduced.
Committee liaisons should be prepared to orally brief the committee on the background of each of the items to be addressed in committee.	The liaison is in constant contact with the Committee Chair.
Committee chairperson should brief the entire Board on committee activity at the full Board meeting.	The agenda is now structured to accomodate this.
Present only a brief summary of the committees' agenda to the entire Board. Only committee members would receive the detailed committee agenda material.	All Board members continue to receive each committee's agenda packets, but due to its streamlined nature, it is no longer a problem.
Clarify the Board member travel arrangement procedure in writing to increase consistency and understanding by the staff involved. This policy should also stipulate who has the authority to oversee the travel arrangement process.	The staff has developed a directive on travel that serves as a "how to" booklet on the travel process. The Adminsirtative Officer serves as the one point of contact for travel issues. The Executive Director's Secretary makes the arrangements.

RECOMMENDATION	STATUS
Have all the public Board members stay in one accessible hotel. This would reduce the duplication of having to confirm with two hotels and increase opportunity for interaction between the Board members. For the Board to support a hotel that is inaccessible appears questionable.	One accessible hotel is now used. The Board members frequency of interaction is on the increase.
Conduct a parliamentary procedure briefing or session for the Board members as part of the initial orientation and offer periodic refresher training to Board members. Increased use of parliamentary procedure will improve the level of discussion by preventing lengthy deviations from the agenda and public personal attacks on individuals.	A training session will be developed for the July meeting.
Identify skill requirements of the Board members and conduct periodic skill-development presentations at the Board meetings to allow the Board members' tenure on the ATBCB to be a developmental experience.	This will be done on an ongoing basis, as needed. The Executive Director welcomes ideas for subjects. The first session will be at the March meeting.
Reduce the number of committees to decrease duplication, prevent communication breakdown, and shorten the duration of the Board meeting from three days to two.	The Board reorganization accomplished this.
Increase Federal agency participation at Board meetings by inviting the member agencies to periodically make presentations on what their agency is doing in the area of accessibility.	This has been done and will continue in the future.

RECOMMENDATION	STATUS
Increase personal cooperation among the Board members. This could be accomplished by increased informal interaction and a recommittment to the Agency's mission.	There is improved cooperation, and the level of informal interaction is on the increase. The Board recently adopted a mission statement as evidence of their recommitment.

COMPLIANCE AND ENFORCEMENT

At the time the study was conducted, the Board had determined that compliance and enforcement is an area that should take priority over other Agency functions. The recommendations presented were predicated on this decision.

RECOMMENDATION	STATUS
Due to the significant number of cases ultimately closed for lack of jurosdiction, the initial verification of Federal funding that is pursued upon opening a complaint could be done with a telephone call and followed up with written verification to expedite the process.	The use of informal telephone contacts is encouraged.
Once Federal funding is confirmed, this information should be enterd in an office log to serve as a resource for future jurisdiction questions of a similar nature regarding that facility.	Aligning the Office of Compliance and Enforcement by Federal agency has created a better understanding of the laws and funding of that agency. The use of such a log will be pursued to ensure institutional memory on these issues.

RECOMMENDATION	STATUS
With the proposed increase in compliance and enforcement staff, the use of complaint specialists rather than attorneys for routine complaint processing, and the installation of an automated complaint tracking system, the use of contracted legal services should no longer be nneded. The need for these services should be reexamined.	Contract legal services are no longer utilized.
The authority to sign compliance letters should be restricted to the Director, Office of Compliance and Enforcement, until the case becomes a legal issue. Once the complaint becomes a legal issue, the General Counsel should sign all correspondence.	The Executive Director signs all letters to Board members, the Director, Office of Compliance and Enforcement signs all others.
The number of layers of review needs to be reduced.	The layers of reviews have been reduced.
Compliance Specialist rather than attorneys should be utilized for routine complaint processing.	Compliance Specialists are being used rather than attorneys for routine complaint processing.
Align the Compliance and Enforcement staff by agency. This would increase rapport and the level of trust with Federal agencies. This would also allow the Federal agency liaison to work with the same specialist. Increased familiarity should foster more informal contact between the two organizations which would expedite complaint resolution.	The staff have been aligned by Federal agency.

RECOMMENDATION	STATUS
Create a Systems Administrator position to make the complaint tracking operational. This will improve the qulaity of complaint monitoring, improve readability and usefulness of the complaint status report, and reduce staff time spent manually tracking complaints and generating the compliance status report.	The automated complaint tracking system is operational. The staff is in the process of adding historical data. The complaint status report for Board members has been significantly improved.
At the time the complaint is received, the number is assigned, and recorded in the logbook, the individual's name assigned to the complaint should also be recorded. This would increase accountability and provide a point of contact when inquiries are made about a specific complaint.	The Case tracking sysytem will have the name of the compliance specialist responsible for the case and the location of the file.
Utilize charge out charges when files are removed from the file.	Charge out cards are used when the case file is taken out of routine processing. A more complete use of the charge out system is encouraged.
Eliminate the use of lengthy case reviews.	This procedure has been eliminated.
Develop internal procedures for recording complaint information to increase consistency in complaint status reporting.	This has been accomplished.

GENERAL AGENCY CONSIDERATIONS

The environment that the Agency works in is a very dynamic, changing one. As times change, the contributions which can be made by the Agency also change. The dynamic environment and the potential for changing the way the ATBCB reacts present opportunities for the Agency to assume a leadership role in addressing issues of accessibility in the years ahead.

RECOMMENDATION	STATUS
Engage an outside consultant to guide the ATBCB through a long-term planning process and assist in developing the skills needed to conduct effective long-term planning on a continuing basis.	This process will begin in July, 1989.
Provide training session to the Board members on the Federal budgetary process and specifically how it relates to the ATBCB.	This will be accomplished at the March, 1989 meeting.
Increase efforts to actively involve the Agency's disabled constituency.	This is included in the Public Affairs plan for the Agency. The newsletter is devoting a portion of its space for this purpose. The staff are attending more constituency meetings. The Executive Director is very closely in touch with the disabled community.

SENATOR LAUTENBERG: Please provide an analysis, over the past five years, of agency personnel retention and turnover rates.
ANSWER:

[The information follows]

STAFFING LEVELS FOR PERMANENT STAFF
CALENDAR YEARS 1985 THROUGH 1989

Year	Perm. Staff	Accessions	Separations	Retention
1985	20	2	7	65%
1986	23	8	5	78%
1987	22	5	7	66%
1988	21	7	7	66%
1989*	22	2	1	95%

* Indicates figures for the period January through May 1989.

SENATOR LAUTENBERG: Please provide a status report of the Board's efforts to collect appropriate periodical and other database information. What is the average age of the publications cited by the Board in its bibliographies? Is it increasing or decreasing? What efforts has the Board made to maintain the library collection -- is it current, or is it getting out of date? Please elaborate.

ANSWER: A requirement of each of the technical assistance or research projects the Board funds is that the contractor include in the final report an up-to-date bibliography on the topic of the project. Most of these bibliographies have been subject to review by the advisory panel of experts most contractors establish for the projects. The Board is thereby assured that the resources represent the best thinking on the subject, including older material which is sometimes retained because it represents particularly timeless background information.

Bibliographies assembled in the past on a topic for which no recent project has been conducted do become obsolete. The Board has established a review cycle, as part of its long-range planning activities last year, to review, update, or remove from circulation publications which have ceased to be current. A new publications list was just created for distribution at the recent meeting of the President's Committee on Employment of Persons with Disabilities. Two of the publications on the new list are scheduled for removal as soon as the General Services Administration publishes the materials required by the Telecommunications Accessibility Enhancement Act of 1988.

During the last several years, as budgets became tighter, the Board did not engage in any regular procurement of technical materials. We did, however, continue to avail ourselves of numerous publications and reports offered by the Departments of Transportation and Housing and Urban Affairs, National Park Service, and Veterans Affairs and purchase essential technical documents including updated technical standards. We also continued to receive periodicals relevant to the Board's mission. In its fiscal 1991 budget, the Board staff has recommended the inclusion of a specific

allocation for books and periodicals to continue developing and maintaining the library collection.

SENATOR LAUTENBERG: Please provide for the record a description of the burglary in the offices last year. What was lost? What was recovered? Were record keeping efforts (e.g., recording of serial numbers, etc.) adequate to support recovery efforts?

ANSWER: Sometime after working hours on November 30, 1988, the Board office suite was entered and burglarized. Items stolen included: VHS 1/2" Cassette Recorder Player; 20" Color Monitor/Receiver; Deskpro Computer; Panasonic Cassette Player; 13" Color/TV Monitor; Battery Adapter/Charger; Panasonic Video Camera with Auto Focus and Boom Mike; Video Cable; Audio Cable; IBM Printer; IBM Computer; Assistive Listening System; Cassette Duplicator; Canon Fax Machine. The Metropolitan Police and the Federal Protective Service investigated the incident and attempted to recover the stolen property. Unfortunately, none of the property has been recovered to date.

The ATBCB maintains and updates, on an ongoing basis, a complete property inventory of all equipment and furniture. That record (which includes serial numbers and cost information on all equipment) was used to develop the list of stolen items used by the police investigators.

SENATOR LAUTENBERG: On page 7, and again on 10, ATBCB indicates that its efforts are targeted to "most" or "certain" Federal and federally-funded buildings. Which buildings are not targeted?

ANSWER: The Board's jurisdiction extends to those federally-funded buildings which are subject to the Architectural Barriers Act. The Architectural Barriers Act covers most federally-funded buildings. The Architectural Barriers Act does not include federally funded buildings which were: (1) designed, constructed, or altered by or on behalf of the United States prior to the effective date of any standards issued under the Act (September 2, 1969); or (2) financed under a Federal grant or loan program such as the Federal revenue sharing program which does not authorize any standards to be set for the design, construction, or alteration of buildings funded under such program. The Architectural Barriers Act also excludes: (1) buildings that are privately owned residential facilities not leased by the Federal Government for subsidized housing programs; and (2) buildings in military installations designed and constructed primarily for use by able-bodied military personnel.

SENATOR LAUTENBERG: What are the limits of authorization ("where authorized"), referred to on page 10?

ANSWER: The statement that "there may be participation in civil proceedings as necessary, where authorized" refers to Section 502 (d) of the Rehabilitation Act of 1973 (P.L. 93-112), as amended. Section 502 (d) authorizes the Board to bring a civil action in any appropriate United States District Court to enforce, in whole or in part, any final order of compliance issued in a formal proceeding initiated by the Board. Section 502 (d) also authorizes the Board to intervene, appear, and participate, or to appear as amicus curiae, in any court of the United States or in any court of a state in civil actions which relate to Section 502 or to the Architectural Barriers Act.

INTERSTATE COMMERCE COMMISSION

STATEMENT HEATHER J. GRADISON, CHAIRMAN

Fiscal Year 1990 Budget Request

Mr. Chairman, Members of the Subcommittee:

Thank you for the opportunity to provide this statement. Before we discuss the Interstate Commerce Commission's FY 1990 appropriation request, I would like to highlight some of the Commission's recent actions and plans for the immediate future.

The Commission has issued decisions on a number of policy issues in the rail area: modification of the rules governing the class exemption for railroad line sales to non-carrier entities; adjustments to the Commission's handling of environmental, historical preservation, financial assistance, and trails use issues in abandonment exemptions; and exemption of certain interlocking directorates from regulation. Some of the significant rail cases decided recently include: Rio Grande Industries' control of the Southern Pacific Railroad Company, which the Commission processed in record time, and Union Pacific Railroad Company's control of the Missouri-Kansas-Texas Railroad. We have made further progress on clearing the rail rate case docket. Last year, at this hearing, I reported to you that we had approximately 23 rate reasonableness cases, 12 of which were coal cases. We now have 13 rate reasonableness cases being handled in 10 proceedings. This number includes a newly-filed complaint. Of these 13, 9 are coal cases, being handled in 6 proceedings.

In the motor carrier area, the Commission dealt with significant issues in the following areas: modifying motor carrier safety fitness procedures, determining whether transportation is interstate or intrastate commerce, determining appropriate tariffs for shippers' goods, modifying regulations to simplify transfer of operating authority, and finding that carrier efforts to charge higher filed tariffs are unreasonable where lower rates were negotiated but never filed. We have issued notable decisions in the Greyhound Lines purchase of Trailways Lines and in the purchase by North American Van Lines of Tran-Star, Inc. Most recently, we proposed dramatic simplification of our permanent and temporary authority application procedures and forms.

The Commission recently approved revisions to its regulations to allow carriers the option of filing tariffs electronically as an alternative to the filing of printed tariffs. The revisions also included simplified tariff standards governing the maintenance of tariffs in lieu of current, detailed tariff regulations. However, prior to the effective date, certain motor carrier organizations petitioned the Commission to stay the effective date and reopen the proceeding for further consideration. A majority of the Commission voted to grant the stay. Consequently, the revised regulations are not in effect, pending consideration of the petition to reopen.

A significant number of Railroad Accounting Principles Board (RAPB) findings have been adopted by the Commission or are proposed for adoption by the end of this year. Some of the areas the Commission has acted upon include the adoption of the entity principle, which requires consolidated railroad and rail-related data

for revenue adequacy determinations; adoption of the data integrity principle, which requires the filing of accurate, valid, and verifiable information with the Commission; the adoption of a productivity adjustment to the quarterly rail cost adjustment factor; and adoption of modifications to rules on abandonments and light-density surcharge proceedings to accommodate the RAPB's findings. Proposals currently before the Commission involve the adoption of the uniform railroad costing system and the modification of the costing system for certain technical changes. We expect these proposals to be acted upon within the next few months.

The Administration is again proposing to further deregulate interstate motor freight, household goods freight forwarder, property broker, bus, and inland waterway carriers and to sunset the Interstate Commerce Commission by October 1, 1989. The remaining rail regulatory functions and associated staff would be transferred to the Departments of Transportation and Justice. The handling of consumer complaints regarding household goods movers would be administered by the Federal Trade Commission.

The resource numbers underlying this legislative proposal are as follows:

$16.289 million and 241 staff-years transfer to DOT
$ 1.473 million and 20 staff-years transfer to Justice
$ 1.419 million and 24 staff-years transfer to FTC

The total resources to be transferred are $19.181 million and 285 staff-years. (These are close to the resources now devoted to rail matters at the Commission.) In addition, $14.458 million is requested to cover severance costs of Commission employees who would not be transferred to other agencies.

The Commission is on record as supporting previously introduced legislation to reduce or eliminate the regulation of non-rail surface transportation, particularly the regulation of motor carriers of property. We have also supported various proposals for reducing regulation of water carriers and brokers. Because I believe this legislative proposal will produce a more efficient transportation system and eliminate needless regulation, I support the Administration's initiative.

The Administration is also requesting an appropriation of $44.689 million and 701 staff-years under current legislation to fund the Commission in the event sunset legislation is not enacted. This request is 11 staff-years fewer than were expended in FY 1988 and reflects the Commission's continuing efforts to make the most efficient use of resources. The Office of Management and Budget recommended a staff level of 11 fewer than the budget originally developed by the Commission last summer in order to cover funding for the FY 1990 effects of the FY 1989 general schedule pay raise through program absorption. This staff-year decrease was spread over several of the Bureaus and Offices. While a majority of the Commission does not object to these reductions, I would like to discuss the general merits of these reductions since there were some dissents.

The Commission currently has a lower workload level than was projected for FY 1989 and FY 1990. This trend should continue, thus allowing reallocation of staff within the Bureaus and Offices to meet the anticipated workload.

The General Counsel indicates that his reduced staff-year level from 27 to 25 is sufficient due to the efficiencies of newly implemented computerization, the decrease in the number of motor

carrier cases resulting from resolution of former rate bureau problems and intra/interstate regulatory issues, and the major decrease, or elimination, of litigation involving rail labor issues related to shortline sales. Consequently, 25 staff-years in FY 1990 will be adequate to handle the predicted workload.

The Director of the Office of Proceedings has stated that the reduced staff-year level of 115 for FY 1989 supports the workload decreases in the motor rate area, especially with the completion of a number of rate bureau investigations. Absent a tremendous increase in the number of negotiated but unfiled rate disputes, the Office will be able to handle the caseload with the staffing level of 111 requested for FY 1990. The Office is now working with other Bureaus and Offices to develop docket management plans to handle a large number of negotiated rates cases (should they be filed).

Staff-year resources devoted to the motor and rail workload in the Bureau of Accounts will not change from the estimated FY 1989 level. The Office is currently handling the same workload level in FY 1990 as in FY 1989 with the same staff-year resources. These resources will be sufficient as most of the staff-intensive rulemaking and advisory workload related to implementing the RAPB findings will have been concluded, thereby allowing staff-years to be reallocated to analytical and case-support activities within the Office.

Notwithstanding these reductions, those single staff-year reductions in the other Offices, coupled with somewhat decreased workload, will maintain a staff-year operating level similar to that used in FY 1988. I am confident that sufficient resources are being requested to accommodate projected FY 1990 Commission activities.

Directed Rail Service

Mr. Chairman, Members of the Subcommittee:

Thank you for the opportunity to discuss the Interstate Commerce Commission's FY 1990 budget request for directed rail service payments.

The Commission has exercised directed rail service authority on lines without Federal Government reimbursement in a few instances; the most recent occasion has been over the lines of the Delaware and Hudson Railway Company. The Commission directed the New York, Susquehanna and Western Railway Corporation to provide unsubsidized, non-compensated directed service to the Delaware and Hudson shippers beginning June 23, 1988, due to the Delaware and Hudson Chapter 11 reorganization bankruptcy proceedings. Directed service authority expired on February 13, 1989. Based on the Trustee's inability to resume operations of the Delaware and Hudson, the Commission extended New York, Susquehanna's authority to operate the Delaware and Hudson until March 15, 1989, under a rail emergency provision of the Statute (49 U.S.C. 11123). Hearings were held on March 8 for further extension of New York, Susquehanna's emergency authority; emergency authority and the emergency service authorization was extended until March 16, 1990.

The last payments for directed rail service were made for directed service performed over the lines of the Chicago, Rock Island, and Pacific Railway Company between October 15, 1979, and March 23, 1980. The account has been inactive for some time, and currently no funds are available for directed service.

The Commission does not anticipate any subsidized or compensated directed rail service in FY 1989 or FY 1990. Therefore, we have not

requested an appropriation of additional funds for this account under current legislation. Under the Administration's sunset proposal, responsibility for directed rail service would transfer to the Department of Transportation.

CHAIRMAN GRADISON, commenting separately:

For several years now, a minority of this Commission has dissented from our budget requests. Each year they fulminate over the role of OMB, and each year they predict dire consequences if additional resources are not appropriated for this agency. Each year, also, the Congress has wisely ignored their predictions. You should do so again.

The OMB passback for FY 1990 reduced our original budget request from 712 to 701 total FTE's. A majority of this agency agreed with the passback, and the Commission, not OMB, determined the Bureau and Office allocation of the 701 staff-years.

Our staff-year ceiling for FY 1989 is 708 FTE's, and our total projected FTE usage is 699.8. In that light, 701 would certainly appear a reasonable staffing level for next year. What the minority refuses to acknowledge is that we are getting the job done each year with resources that the minority predicted would be inadequate. Some workload facts should be considered.

When I became Chairman in December 1985, there were 87 rail maximum ratemaking cases pending before the Commission. At the end of 1986, there were 52 cases pending; at the end of 1987, there were 25; and there are now 13 embraced in 10 proceedings. Our caseload is being efficiently handled, and our decisions are being consistently sustained by the Court of Appeals. That is not the kind of performance one would expect of an understaffed agency.

This agency is efficiently meeting all of its statutory responsibilities with staffing comparable to that sought for FY 1990. Furthermore, the trendlines in workload data provide utterly no factual predicate for an increase in staffing. Speculation about workload increases will likely prove as groundless this year as it has in past years.

For these reasons, I strongly oppose funding in excess of that requested by this agency.

The Commission requires FY 1990 funding for 701 staff-years, no more and no less.

SEPARATE COMMENTS OF VICE CHAIRMAN SIMMONS

I cannot join in the Chairman's submission of a budget which in my view provides inadequate resources to meet the Commission's statutory responsibilities. I also wish to strongly disassociate myself from the Chairman's continuing support for sunset of the agency which she has headed for three and one-half years.

The FY 1990 ICC budget submitted to Congress has once again been imposed by the Office of Management and Budget. In his separate comment, Commissioner Lamboley clearly describes how the majority's proposed budget does not reflect the Commission's considered judgment of its resource requirements but rather constitutes an abdication of our budgetary duties to OMB.

Two examples of unrealistic budgetary assumptions particularly stand out in the Chairman's statement. First is the assumption that staffing reductions in the General Counsel's office are partly justified by a "major decrease, or elimination, of litigation involving rail labor issues related to shortline sales." Although the Supreme Court is currently addressing this issue, it is wishful

thinking to rely on any Court decision to resolve all questions and immediately lead to a "major decrease" in litigation. Secondly, it is stated that further staff reductions in the Office of Proceedings will not affect our ability to process negotiated rates cases. The Commission recently changed its policy regarding these cases, and these changes should result in a large increase in the number of cases filed. Unspecified "docket management" plans are cited as the solution to handling more cases with fewer staff.

I question whether any Chairman who supports the elimination of his or her own agency can objectively judge the resources required for continued effective performance of that agency's functions. There is more than one way to sunset an agency. Inadequate staffing can create a gradual but relentless decline in agency expertise, performance, and overall morale. This "budgetary sunset" of the agency should not be allowed to replace the considered judgment of the Congress on the future of the ICC.

In this regard, the assertion that the Administration is again proposing to sunset the ICC is disingenuous at best and cannot go unchallenged. As is conceded in response to a specific question, the Bush Administration has submitted no sunset legislation to the 101st Congress. Acceptance of the Reagan Administration transportation budget implies nothing regarding sunset of the ICC. This budget includes alternative funding for the Commission, and, given the constraints under which the new administration was working, it is unlikely that the sunset issue was even specifically considered.

It is perhaps understandable that the head of an agency who has consistently questioned the worth of most of that agency's activities should conclude that these activities can be performed effectively with fewer and fewer resources. What is more difficult to understand is support for a proposal to transfer crucial functions to the Department of Transportation. The four years which the Department of Transportation required to implement motor carrier safety legislation passed by Congress in 1984 speaks for itself. The ICC's functions regarding motor carrier insurance monitoring, decisions on rail mergers, and numerous other transportation issues, are too important to be shifted to a department with this record of delay and inaction. With adequate staffing resources, the ICC can and should continue to perform such functions for the benefit of the public and a healthy domestic transportation industry.

COMMISSIONER LAMBOLEY, commenting:

This year, as in past years, I disagree with substituting the OMB proposed budget and staffing levels for Fiscal Year 1990, without further analysis and consideration by the entire Commission. I would prefer instead to submit a budget proposal adopted by the Commission after a comprehensive consideration of the agency's functions and requirements and OMB views. This year's submission asserts information and positions, including reprogramming, developed outside of the ordinary Commission budget process.[1]

In past years, I have likewise observed that the Commission had significantly and responsibly reduced its personnel and budgetary

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[1]ICC budget review with OMB is necessarily an appropriate cooperative venture. However, the ICC does have statutory authority for concurrent transmittal to Congress, thus the ability to bypass a prior approval by OMB. See 31 U.S.C. Section 1108(f). Accommodation does not translate to abandonment of authority or responsibility.

resources over the years, and had likewise sustained an accelerated attrition rate. However, I concluded that budget proposals for FY 1988 and 1989 may not be adequate.

This year my concern is not abated. Reductions continue with the consequence of an "attrition based" increase in productivity. Personnel retention and recruitment remain problematical.

Commission strength reports reflect that staffing has consistently been restricted to levels below that authorized by Congress. It is evident from the table below that permanent position vacancies remain unfilled and a reduced workforce is maintained.

FY	FTE REQUESTED	FTE AUTHORIZED	FTE EMPLOYED (AVERAGE)	FTE EMPLOYED (Close of FY)	SPECIAL APPTS
1985	987	949	916	834 (9/28/85)	25
1986	923	889/851*	806	702 (9/27/86)	40
1987	800	790	732	706 (9/26/87)	32
1988	748	750	712	678 (9/24/88)	33
1989	724	724/708**		675 (5/6/89)	27

(*889 reduced to 851 under Gramm-Rudman-Hollings)
(**708 reflects a reprogramming figure)

It has become all too obvious that maintaining the chronic level of under-filled positions has the consequence of reducing the Commission's role and activities. It has also resulted in undermining the credibility of the Commission's budget process.

At Commission budget conferences Bureau and Office heads assert that no staffing difficulties exist. However, in other settings, employees, who do not generally attend conferences, and even some managers who do, attest to deep concerns over morale, staff levels and workload.[2]

Customarily, in budget conferences, when asked, Bureau and Office Heads represent that staff levels requested are necessary. Having done the same this year, those same Bureau and Office Heads are reported to now hold other views. The only intervening event has been the "OMB passback."

[2]To the extent revenue from fees and fines may be indicative of activity levels, such revenue has remained fairly constant in recent years; i.e., FY 1985 fees: $4.5(mil), fines: $643(k); FY 1986 fees: $4.46(mil), fines: $1,134(mil); FY 1987 fees: $4.3(mil), fines: $852(k); FY 1988 fees: $4.86(mil), fines: $67(k). Caseload statistics for each FY are set out in Appendix B of the Commission's Annual Reports.

Not only has the chronic underfilled positions circumstance undercut the Commission budget process and agency mission, it has been used this year by OMB as the basis for reducing the budget request of the Commission. In a letter dated January 23, 1989, Deputy Associate Director Schwartz explained that "OMB eliminated only positions that would have remained vacant."

The critical point however is that the Commission does not view its budget and staff requests as including positions that "would have remained vacant." No matter the source of the view upon which OMB may have relied, it does not accurately reflect the views of the Commission.

In sum, these and other matters are specifically within the Commission's knowledge and experience, not that of OMB. For that reason, it is important that the Commission convey to Congress its own budgetary proposal after considering OMB's passback, rather than substituting OMB's version of resource needs. To do otherwise, is to effectively delegate Commission responsibility to OMB.

QUESTIONS SUBMITTED BY SENATOR LAUTENBERG

BUDGET PROPOSAL TO SUNSET ICC

SENATOR LAUTENBERG: The Budget for 1990 indicates that legislation will be proposed to sunset the ICC and to deregulate completely the interstate motor freight, household goods freight forwarder, property broker, bus, and water carrier industries by October 1, 1989. What is the status of that legislation? Please provide a copy to the Committee.

ANSWER: In the 100th Congress, the Administration submitted omnibus trade legislation which became H.R. 1155 and S. 539, the "Trade, Employment, and Productivity Act of 1987." Contained in this legislation was the "Interstate Commerce Sunset Act of 1987" (see Title IV, Subtitle C). A general description and section-by-section analysis from the Congressional Record of February 19, 1987, follows. The sunset proposal was not acted upon in either the House or Senate.

While the new Administration has indicated support for the previous sunset proposal by virtue of its acceptance of the Reagan administration transportation budget, no legislation has been submitted to the 101st Congress.

SEPARATE EXPRESSION OF VICE CHAIRMAN SIMMONS: Inasmuch as the Bush Administration has not submitted any ICC sunset legislation to the 101st Congress, it is disingenuous to infer support for sunset from mere acceptance of the Reagan Administration transportation budget. That budget contains an alternative provision for the ICC if, as has been the case in recent years, the Congress declines to mandate sunset. Given the time and other constraints under which the Bush Administration was working, it is unlikely that the issue of ICC sunset was even considered.

[CLERK'S NOTE: The insert from the February 19, 1987, Congressional Record will not be printed in the hearing record but will be available for review from the subcommittee office.]

SENATOR LAUTENBERG: According to the proposal, remaining rail activities would be split between the Departments of Justice and Transportation. The budget request for the portion going to the Transportation Department is budgeted at $16,289,000. Please provide a crosswalk which tracks agency functions, staffing and funding through the sunsetting proposal, and indicate which activities, staff, and costs are transferred to which Department.

ANSWER: The proposed sunset of the Commission would result in the transfer of 241 staff-years and $16,289,000 to the Department of Transportation and 20 staff-years and $1,473,000 to the Department of Justice. The Commission's rail freight regulatory functions would be transferred to the Department of Transportation. The proposal preserves the reforms accomplished by the Staggers Act by transferring the ICC's authority over rail freight rates, services, practices, and abandonments to DOT without substantive change. The Commission's rail antitrust functions, i.e., rail rate agreements, pooling arrangements, and mergers would be subject to the antitrust laws at the Department of Justice.

SENATOR LAUTENBERG: The sunset proposal also proposes to transfer the handling of consumer complaints regarding household

goods movers to the Federal Trade Commission. How much money and staff are proposed for transfer with this provision?

ANSWER: The Sunset proposal would transfer $1,419,000 and 24 staff-years to the Federal Trade Commission.

SENATOR LAUTENBERG: What are the pros and cons of the Administration's proposal? For example, how would the handling of rail cases be changed? Motor carrier cases?

ANSWER: The Commission has put into place procedures to implement, effectively and fairly, the 1980 and 1982 revisions to the Interstate Commerce Act. Under the Staggers Rail Act, the Motor Carrier Act of 1980, the Household Goods Transportation Act of 1980, and the Bus Regulatory Reform Act of 1982, rates and service levels are largely determined by market forces. In those instances where the Commission is required to step in to protect captive rail shippers from carriers' market power or to address complaints against motor carriers or address matters of broad transportation concern, procedures and guidelines established by the Commission provide appropriate protection and guidance for shippers and carriers.

In general, sunset of the ICC and transfer of remaining regulatory functions to DOT and other existing administrative agencies has the potential of reducing administrative costs by substituting an office or administrator within an existing entity for a separate 5-member Commission. Moreover, policy direction through a cabinet department would be more direct and focused than through an independent regulatory Commission, and this could reduce regulatory delay and unpredictability. On the other hand, placing these responsibilities in the hands of the Executive Branch could be seen as a reduction in the traditional "independence" and bipartisan character of a separate regulatory agency.

In regard specifically to railroad regulation, we do not foresee any significant regulatory changes resulting from the shifts in administrative responsibility proposed by the Administration, noting that the Departments of Transportation and Justice have, in general, cooperated with and supported the Commission's initiatives, positions and policies through their participation in Ex Parte policy and rulemaking proceedings and significant precedent-setting cases. Thus, we foresee little substantive change in railroad regulation if regulatory responsibility were to be shifted to the Department of Transportation.

In regard to further motor carrier deregulation, an Administration bill ending economic regulation of these carriers entirely would remove the last vestiges of paperwork cost and procedural delays, but would likely have little other substantive impact on these industries.

Of the motor carrier regulations that would remain, primarily involving safety and insurance and household goods shipper protections, DOT now has responsibility for setting and enforcing safety standards and for setting insurance standards. If the Commission's economic regulation of motor carriers were to end, its enforcement of insurance requirements could be grafted onto existing DOT functions. In regard to a transfer of household goods complaint handling to the Federal Trade Commission, the basic tradeoff would be one of the Commission's expertise about the motor carrier industry and issues and rules unique to household goods moving for the FTC's expertise in the area of consumer protection generally. The Commission's substantive rules protecting household goods shippers (and carriers) from unfair treatment are an outgrowth of actual

consumer complaints heard over the years, beginning with Ex Parte 19 (initiated soon after the advent of motor carrier regulation), and codified in subsequent legislation and regulations.

SEPARATE EXPRESSION OF VICE CHAIRMAN SIMMONS: One must seriously question whether a transfer of ICC functions to DOT is an efficient use of government resources. As a small, independent agency, the ICC has in recent years moved proceedings and controversy expeditiously and fairly. It is because of its independence and established expertise in the field that the ICC has been able to successfully implement the Motor Carrier Act of 1980 without undue disruption to most of the industry. While there has been considerable controversy over its implementation of the Staggers Rail Act, the Congress has seen fit to leave its implementation to an independent commission free of ideology or changing winds in the Executive branch.

Although DOT and the ICC have shared some responsibility for safety and insurance matters, their primary functions are unique and different. For example, only the Commission may revoke the operating authority of a carrier that lacks the required minimum insurance. In a just completed report to OMB, DOT demonstrates that there is very little, if any, overlap in duties on matters of insurance and safety. The Commission's unique expertise on insurance was in fact demonstrated recently when it implemented rules to permit motor carriers to obtain self-insurance. This quick action came on the heels of carrier and Congressional concerns for escalating premiums that threatened the very existence of small and moderate-sized carriers.

Whether further motor carrier deregulation should occur is also Congress' prerogative. Such a step would be studied with the utmost consideration for shipper needs, consumer protection, safety, and furtherance of a stable motor carrier industry. However, if Congress believes further deregulation of the industry is not prudent at this time, the efficient use of government resources dictates those functions remain with the ICC. The industry has prospered and matured under the ICC implementing actions. The ICC's functions regarding motor carrier insurance monitoring, owner-operator protections, decisions on railroad proceedings, household goods matters, and numerous other transportation issues, are too important to the country's economic and national security concerns to be shifted to a large department with a record of delay and inaction without careful thought and study.

COMMISSIONER LAMBOLEY, commenting: Proposals for I.C.C. sunset, in my opinion, tend to take the substantive debate on many issues in the wrong direction. For me, the major question is how may we better develop cohesive national and international transportation policies and systems which permit American industries to effectively participate in domestic and global markets on a multi-modal and inter-modal basis. Such an effort will require a closer coordination and cooperation among the agencies involved in all transportation modes. The forum issue requires assessment of policy/rulemaking and adjudicative functions in light of the respective roles of the executive, and legislative branches, and independent administrative agencies. In my view, the current proposals more narrowly focus only on the "bits and pieces" of transportation and do not address the larger transportation needs and relations. The debate should not be limited to the budgetary or forum considerations for functional transfer purposes.

SENATOR LAUTENBERG: Please provide, as a drafting service, bill language which would be required if the Committee were to agree to the President's proposal.

ANSWER: In the 100th Congress, the Administration submitted omnibus trade legislation which became H.R. 1155 and S. 539, the "Trade, Employment, and Productivity Act of 1987." Contained in this legislation was the "Interstate Commerce Sunset Act of 1987" (see Title IV, Subtitle C). Bill language for Subtitle C of S. 539 which is the draft submitted by the Administration to achieve its goals for sunset of the agency follows.

While the new Administration has indicated support for the previous sunset proposal by virtue of its acceptance of the Reagan administration transportation budget, no legislation has been submitted to the 101st Congress.

SEPARATE EXPRESSION OF VICE CHAIRMAN SIMMONS: Inasmuch as the Bush Administration has not submitted any ICC sunset legislation to the 101st Congress, it is disingenuous to infer support for sunset from mere acceptance of the Reagan Administration transportation budget. That budget contains an alternative provision for the ICC if, as has been the case in recent years, the Congress declines to mandate sunset. Given the time and other constraints under which the Bush Administration was working, it is unlikely that the issue of ICC sunset was even considered.

[CLERK'S NOTE: The bill language for Subtitle C of S. 439 not be printed in the hearing record but will be available for review from the subcommittee office.]

OPEN CONFERENCES

SENATOR LAUTENBERG: How many open conferences are allowed by the by-laws? Please provide a table for fiscal years 1987, 1988, 1989 and 1990, showing how many were held (or planned). Does the Commission contemplate a change in the current policy, in order to hold more (or fewer) open conferences?

ANSWER: The Government in Sunshine Act does not limit the number of conferences the Commission may hold. The Act requires that an open conference be held when 3 or more regulatory Commissioners meet to conduct Commission business. The Commission does not anticipate any changes in the current policy for conferences.

The following table lists the conferences held during FY 1987-FY 1989 to date. Conferences are held as the need arises; we have no way to project the number for FY 1990.

SCHEDULE OF ORAL ARGUMENTS AND CONFERENCES

	Oral Arguments	Conferences Open	Conferences Closed
FY 1987	3	10	0
FY 1988	5	5	0
FY 1989*	3	2	0
TOTAL	11	17	0

*Through May 9, 1989.

COMMISSIONER LAMBOLEY, commenting: To better serve the public interest, I continue to believe the Commission should hold regular open meetings, as well as more oral arguments and hearings. 49 CFR Part 1012, specifically §1012.2, states that regular Commission conferences are held on the 1st and 3rd Tuesdays of each month. The Commission does not hold regular meetings. The bulk of Commission business is done by notation voting, which although having advantages, does have the primary disadvantage of isolating the Commissioners and enhancing staff functions.

DIRECTED RAIL SERVICE

SENATOR LAUTENBERG: Please provide for the record an analysis of the impact of the directed rail service over the Delaware and Hudson Railroad Company system by the New York, Susquehanna and Western Railway Corporation.

ANSWER: Directed rail service by the New York, Susquehanna and Western Railway Corporation (NYS&W) over the Delaware and Hudson Railroad Company (D&H) system expired on February 13, 1989, pursuant to the provisions of 49 U.S.C. 11125. Based on the Trustee's inability to resume operations of the Delaware and Hudson, the Commission extended New York, Susquehanna's authority to operate the Delaware and Hudson until March 15, 1989, under a rail emergency provision of the Statute (49 U.S.C. 11123).

Following the analysis of views and comments and an oral hearing on March 8, 1989, the Commission determined that an emergency situation continued to exist on the D&H. The Commission then, on March 15, 1989, authorized the NYS&W to operate over the D&H for a period of one year (through March 16, 1990) under the emergency service provisions of 49 U.S.C. 11123 without Federal subsidy or compensation. If the D&H's problems have not been resolved by the end of this one-year emergency service authorization, the Commission will consider an extension request.

The major impact of NYS&W service over the D&H system since June 23, 1988, has been continued and improved service to D&H shippers, pending efforts by the Trustee to allow the D&H to resume operations under Chapter 11 protection, consider offers by other railroads, or liquidate the property.

Analysis of views and comments filed by numerous D&H shippers and Federal, State, and local officials indicated that NYS&W service was an improvement over pre-bankruptcy operations of the D&H. Similarly, the vast majority of shippers and government officials in the region supported continued NYS&W service as a competitive alternative to Conrail operating over the D&H system.

In 1988, about 98,000 carloads were handled on the D&H lines, and the NYS&W expects an increase in traffic to about 111,500 carloads in 1989, an increase of 14 percent. The Commission's emergency service authorization to the NYS&W requires quarterly reports from the NYS&W and from the Trustee regarding his progress in resolving the problems facing the D&H. The first reports covering operations through May 31, 1989, are due by the end of June 1989. The Commission will then be in a better position to measure the impact of NYS&W operations, as service will have covered about 11 months under both directed and emergency service authorizations (June 23, 1988 to May 31, 1989).

The labor situation on the D&H can best be described as unsettled. Latest reports from the Trustee indicate that his initial plan to resume D&H service did not have total labor support. Latest

reports also indicate that the United Transportation Union is threatening a strike against the Delaware Otsego Corporation, parent of NYS&W, over NYS&W's abolition of positions on the D&H.

MOTOR CARRIER DATA

SENATOR LAUTENBERG: What is the status of the ICC's current rulemaking on motor carrier data, Docket No. 38904, Elimination of Accounting and Reporting Requirements for Motor Carriers of Property?

ANSWER: The decision in Docket No. 38904, Elimination of Accounting and Reporting Requirements For Motor Carriers of Property, was served October 12, 1988. The final rules significantly reduced reporting burden by downsizing the annual report Form M from 60 to 13 pages, and the quarterly report Form QFR from 9 to 3 pages. The Uniform System of Accounts (49 CFR 1207) remains prescribed for Class I and II motor carriers (i.e., those with annual operating revenues exceeding $5.0 million and $1.0 million, respectively). This level of reporting will assure adequate financial oversight of the industry.

SEPARATE EXPRESSION OF VICE CHAIRMAN SIMMONS: On the questions regarding the amount of motor carrier data needed and the status of Docket No. 38904, I would offer the following comments. The evidentiary record in Docket No. 38904 gave a clear consensus as to the course of action this Commission should follow. The overwhelming weight of the testimony indicated a clear and strong opposition to Commission proposals to adopt a one-page quarterly and annual report form, to eliminate the Uniform System of Accounts (USOA), and to discontinue reporting by Class II motor carriers. The parties sharing this view represent a large majority of the motor carrier and insurance industries (including the Regular Common Carrier Conference of the American Trucking Associations, and the American Insurance Association), several shippers groups and several States and federal government entities.

The commenting motor carrier associations (MCA) jointly engaged the services of Arthur Andersen & Co. to make a comprehensive review of the Commission's accounting regulations and reporting requirements. Andersen was directed to identify objectively the minimum requirements which would be consistent with the Commission's regulatory responsibilities. The resulting study concluded that the USOA should not be eliminated, and reporting by Class II motor carriers should be retained. It further proposed a reduction of the present annual and quarterly reporting forms to a 10-page format which would gather the minimum information consistent with meaningful reporting.

In ostensible response to these proposals and the overwhelming record evidence in support of them, a draft final rule was submitted to the Commission on December 19, 1985, which proposed a one-page annual and quarterly report form, eliminated any reporting by all motor carriers except Class I motor common carriers and eliminated the Uniform System of Accounts except as a reference. A majority of the Commission rejected the draft final rules and on January 2, 1986, the Chairman inexplicably suspended voting in this proceeding. Voting was not resumed for over a year at which time a draft was submitted to the Commission which left virtually intact all of the previous draft's proposals (including one-page reports limited to Class I motor carriers) which the Commission had rejected in December 1985. In March 1987 a majority of the Commission voted to adopt a rule incorporating some of the Arthur Andersen findings, but

this rule was stayed by the Commission before it became effective. The stay was finally lifted last October when a majority of the Commission was able to adopt a viable reporting system which balances the interests of all parties, preserves meaningful reporting requirements, and removes substantial burden hours from the motor carrier industry.

COMMISSIONER LAMBOLEY, commenting: In my opinion, data base and information retrieval, be it for rail or motor industries, continues to receive insufficient attention or budgetary priority. Motor information filing requirements have been long delayed. Rail filings for Class II and III are non-existent, as a consequence so is a carrier data base on shortline and regional railroads. The Commission must rely on reports of others, such as AAR or FRA.

SENATOR LAUTENBERG: To what extent has OMB approved the motor carrier annual reports? Has the 1988 annual report been approved? Quarterly reports for 1989?

ANSWER: OMB has approved motor carriers Annual Report Form M and Quarterly Report Form QFR through December 31, 1991.

SENATOR LAUTENBERG: Please describe the amount and kinds of data the Commission thinks is necessary to collect in the motor carrier area, from whom, and the rationale for this position. How has this changed over the past 3 years? Why has it changed? How does the Commission think it would change if the Administration's sunset legislation were to be enacted?

ANSWER: The Commission decided in Docket No. 38904 that extensive reporting requirements are no longer necessary for regulatory purposes. Only the basic financial information necessary to monitor the financial condition of other industry, e.g., balance sheet, income statement, and some selected operating expense and statistical data need to be filed.

All Class I and Class II motor carriers of property will continue to be subject to the annual reporting requirements. The annual report (Form M) has been reduced from 60 pages of data to 13 pages of data. This results in a substantial reduction in associated burden hours for preparing the report from 105,808 to 52,925, a total reduction of 52,883 burden hours.

All Class I motor carriers of property and Class II Instruction 27 motor carriers of property (i.e., those which derive 75 percent or more of their operating revenues from the intercity transportation of general commodities) are subject to the quarterly reporting requirements. The quarterly report (QFR) has been reduced from nine pages of data to three pages of data.

Some carriers have been relieved from reporting requirements. Generally, these are carriers deriving only a small portion of their freight revenues from interstate operations, such as those operating predominately within a commercial zone.

Should sunset legislation be enacted, the basic data would still be required but would have to be obtained through other sources.

SENATOR LAUTENBERG: Do you think this would satisfy Congress's need for motor carrier data?

ANSWER: The Commission believes the data presently filed provide sufficient information to monitor financial conditions and trends in the industry.

SENATOR LAUTENBERG: Currently, how many motor carriers are exempt from reporting if they are not hauling general freight?

ANSWER: There are approximately 325 carriers exempt from reporting if they are not hauling general freight. Generally, carriers may be relieved from reporting upon request if only a small percentage of their annual freight revenues are derived from interstate operations.

The Commission recently decided to revoke the reporting exemptions of about 40 previously relieved motor carriers whose exemptions were conditional on the possibility of resumed filing. This decision was based on the reduced burden in completing the new condensed report form adopted in Docket No. 38904, Elimination of Accounting and Reporting for Motor Carriers of Property, served October 12, 1988.

SENATOR LAUTENBERG: Please describe the Commission's involvement in any aspect of motor carrier safety.

ANSWER: The statute requires that the Commission only license carriers that are "fit, willing, and able." To carry out this mandate, the Commission uses the results of DOT's safety audit program to determine whether a carrier has the requisite safety fitness to receive a license.

The Commission's safety fitness licensing policy was fully explained in a policy statement issued on December 6, 1988, in Ex Parte No. 55 (Sub-No. 71), Notice of Policy and Final Rule Governing Submission and Evaluation of Safety Fitness Evidence in Motor Carrier Licensing Proceedings. Under the policy statement, the Commission continued its practice of refusing to issue authority to any carrier with an unsatisfactory safety rating. Passenger carriers and carriers seeking to transport hazardous materials that hold conditional safety ratings also will not be licensed. Applications in these categories are rejected.

All other conditionally rated carriers may receive a non-renewable 1-year term license if they certify that they have requested a new safety audit from DOT and explain the measures they have taken to eliminate all the safety problems described in the DOT audit. The same standards are applied to finance transactions that involve acquisitions of motor carrier licenses or operations. In other words, the Commission scrutinizes the safety fitness of all those who enter the trucking business either by application or purchase.

Periodically, the Commission will institute an investigation and revocation proceeding looking toward suspending or revoking authority of a carrier with a chronically poor safety record. These proceedings rely heavily on safety records compiled by DOT.

Financial responsibility is also an aspect of safety fitness. The Commission does not issue an operating authority certificate or permit to carrier applicants unless there is compliance with the insurance regulations for the protection of the public. Similarly, carrier applicants granted emergency temporary and temporary authority must comply with the insurance requirements before implementing service.

The Commission's bodily injury and property damage insurance filing requirements provide for the payment of any final judgment up to amounts prescribed by the Commission against a regulated common or contract motor carrier. Coverage includes payments for bodily injuries to or death of any person, or loss or damage to property of others, resulting from the negligent operation, maintenance, or use

of motor vehicles in transportation regulated by the Commission. Regulated motor carriers must file evidence of required insurance coverage before a certificate or permit may be issued. (The Commission will also consider and may approve an application for a carrier to qualify as a self-insurer.) The coverage remains in effect continuously until cancelled by the filing of a notice of cancellation (at least 30 days prior to cancellation) or until terminated by the filing of replacement coverage. Failure to maintain required coverage on file results in the immediate commencement of a revocation proceeding against a carrier and an enforcement action, if deemed necessary, to prevent a carrier from operating until replacement coverage is filed.

RAILROAD DATA

SENATOR LAUTENBERG: This Committee in the report accompanying the fiscal year 1988 appropriations bill requested FRA to report on Class II and Class III railroads including:

-- an estimate of the traffic that would be diverted from rail to highway if these railroads ceased operation;

-- an accounting of the actual mileage of lines transferred to create new Class II and Class III railroads since the enactment of the Staggers Rail Act of 1980;

-- an estimate of the miles of line currently owned by Class I railroads that are likely to be transferred to new or existing Class II or Class III railroads;

-- a survey of Class II and Class III railroads that have failed since 1980, together with an analysis of factors that contributed to failures.

Please update the Commission's response, which is on pages 738-745 of last year's Senate Appropriation Hearings.

ANSWER: The Commission continues to monitor the Class II and Class III railroads created since the Staggers Rail Act of 1980. Initially, this information was obtained exclusively by surveying each new carrier and developing a database to monitor the growth of the shortline and regional railroad industry. Since mid-1988, the Commission has subscribed to the Association of American Railroads' (AAR) computerized data base, Profiles of U.S. Railroads, which includes statistical information on all the railroads in the United States.

Of the 225 new railroads that have commenced operations since the 1980 Staggers Act, 194 were still operating, as of December 31, 1988. Summary data for these lines are as follows (the Commission considers a Regional Railroad to be 250 miles or larger):

	Shortlines	Regionals	Total
Number formed	179	15	194
Carloads/year	706,020	985,011	1,691,031
Mileage	8,649	9,914	18,563

The Class I railroads are not required to report data on potential shortline sales. However, several carriers have publicly

discussed plans to streamline their systems through both abandonment and shortline sales. Additionally, most of the Class I railroads have developed shortline sales departments to more effectively market the line sales.

Not all of these new shortlines have been successful. There have been 29 new shortlines and 2 regional railroads that have ceased to exist since Staggers. This includes failures, mergers, and sales. Full or partial service, however, has been resumed by another railroad on 15 of these 31 lines. The 2 regionals include the Southrail purchase of the Gulf & Mississippi and the Iowa Interstate takeover of the Iowa Railroad. Other examples of shortlines with renewed service are the Lewis & Clark Railroad taking over the 30 miles of the Chelatchie Prairie; the Carthage, Knightstown & Shirley taking over 24 miles of the Indiana Midland; and the Wisconsin & Calumet picking up 115 miles of the Wisconsin Western.

Of the 16 shortline failures where there was a total cessation of service, 10 were located on former lines of the bankrupt Milwaukee Road, Penn Central, or Erie Lackawanna. Many of these shortlines were last-ditch efforts to save rail service, and were plagued by low traffic levels and poor trackage. On several of the failed lines, the only shipper went out of business and, subsequently, the railroad also ceased operations.

These failures are only a small portion of the new shortline carriers that began operations since Staggers. Given the types of lines on which many started, the failure rate is low when compared to that of other small business start-ups.

COMMISSIONER LAMBOLEY, commenting: In my opinion, data base and information retrieval, be it for rail or motor industries, continues to receive insufficient attention or budgetary priority. Motor information filing requirements have been long delayed. Rail filings for Class II and III are non-existent, as a consequence so is a carrier data base on shortline and regional railroads. The Commission must rely on reports of others, such as AAR or FRA.

SENATOR LAUTENBERG: Please update the Commission's formal or informal filing requirements for Class II and Class III railroads. How would these change under the President's Sunset Proposal?

ANSWER: The Commission has no formal filing requirements for Class II and Class III railroads, since these carriers were exempted by the Commission from filing and reporting requirements. On an informal basis, the Office of Transportation Analysis monitors the shortline rail industry, and periodically surveys the carriers to obtain current operational information. The Office is now conducting a survey of shippers who are using new shortlines. This informal monitoring function would continue under the rail activity functions transferred to the Department of Transportation under the President's sunset proposal.

RAILROAD ACCOUNTING PRINCIPLES BOARD RECOMMENDATIONS

SENATOR LAUTENBERG: On March 23, 1989, the Commission reported to the Committee on the actions taken to implement the Railroad Accounting Principles Board's (RAPB) principles. The letter suggested that the Commission's actions to implement all of the Board's suggestions and recommendations are substantial, but some work continues.

Please update the Commission's responses to the following questions, contained on pages 747 to 763 of last year's Senate Hearing.

The asset base is a key determinant in the calculation of revenue adequacy. The Commission's use of predecessor cost, instead of acquisition cost, understates the return on investment.

Does the Commission plan to change its practice of using predecessor cost? If not, why not? If so, when and how will the change take place?

ANSWER: We have not changed our position on the use of predecessor cost, and plan to continue to use it in those limited circumstances where we believe it is warranted.

Both the RAPB and the Commission have recognized that acquisition cost, as determined in accordance with generally accepted accounting principles (GAAP), may not produce a meaningful regulatory measure in all circumstances. In particular, the RAPB noted that acquisition cost values that result from the disposition and acquisition of assets or through restructuring may be inappropriate regulatory values. The Commission agrees with the RAPB and believes that, following GAAP in these instances could produce significant harm. We have found that the asset values of some railroads, recorded at acquisition cost, reflect substantial write downs in the past, even below scrap value. As a result, they do not reflect the cost of replacing those assets. (A primary consideration of revenue adequacy is to provide sufficient revenue to allow assets to be replaced.) If we were to use these written down values in determining revenue adequacy, then the calculated return for these railroads would artificially increase, thus understating the railroad's true earning requirements relative to the replacement cost of its assets. Revenue need, determined on the basis of written down value, could result in a rate structure that would not provide sufficient funds to allow for the replacement of assets.

SENATOR LAUTENBERG: The Commission has stated that it favors a "market based approach" to measuring revenue adequacy. Why then does it use predecessor cost?

ANSWER: As we stated in our previous response, the Commission has consistently favored a "market based" approach in measuring revenue adequacy. We have used predecessor costs only in those limited circumstances where the acquisition cost does not reflect the replacement value of the assets.

SENATOR LAUTENBERG: Has the Commission ever made a positive finding that the acquisition cost is not a meaningful regulatory measure of value? If so, when?

ANSWER: Acquisition cost has been used in the Commission's annual determinations of revenue adequacy for the majority of railroads. The Commission made a finding that acquisition cost may not always be a meaningful regulatory measure in our 1981 revenue adequacy determination (Ex Parte No. 439). In that proceeding, we found that predecessor costs should be used to determine the revenue adequacy for 5 railroads out of a total of 37. We subsequently used predecessor values for a few railroads in each of our revenue adequacy determinations for 1982, 1985, and 1986.

SENATOR LAUTENBERG: On what basis was this determination made?

ANSWER: The Commission determined that the use of acquisition costs for a few railroads, whose investment bases had been substantially written down as a result of acquisition or reorganization, would produce returns that would be incompatible with the majority of railroads. This decision was made because the

recorded asset values reflected an acquisition cost which was neither market based nor comparable with those of the other railroads.

For the major rail systems excluding Conrail, the difference between predecessor and acquisition cost for revenue adequacy determination is minor. The legislation authorizing the sale of Conrail statutorily precludes our using acquisition cost as the basis for valuing Conrail's assets in any regulatory proceeding.

SENATOR LAUTENBERG: Is the acquisition cost, that is, what an acquiring railroad paid for the assets of another railroad, a good measure of value? If not, why not?

ANSWER: We continue to believe that acquisition cost is a good measure of market value in the majority of cases, and we would normally employ it in determining revenue adequacy. However, as we stated in our previous response, there are circumstances (i.e., purchase of assets at "bargain basement" prices) where the use of acquisition cost could produce erroneous results. In some instances, use of acquisition costs in return-on-investment calculations would infer a level of revenue need that would not allow for the replacement of assets, a major objective of regulatory policy.

SENATOR LAUTENBERG: Both the GAO and the RAPB have suggested that the Commission review the change-over to depreciation accounting that resulted in asset base write-up. What are the Commission's plans in this area?

ANSWER: The Commission has not made a determination to revisit this issue. In Docket No. 36988, Alternative Methods of Accounting for Railroad Track Structures, served February 17, 1983, the Commission adopted depreciation accounting (DA), resulting in a write-up of the investment base. The asset base write-up represents amounts previously expensed under replacement, retirement, and betterment (RRB) accounting, and to the extent that the written-up assets are depreciated under DA, it was argued that there is a double write-off of expenses. The Commission decided, however, that there is no double recovery of these costs because the railroads' large revenue shortfalls in recent years clearly exceed the depreciation expenses associated with the write-up of assets to reflect DA. This conclusion was reconsidered and sustained in Ex Parte No. 393 (Sub-No. 1), Standards for Revenue Adequacy.

SENATOR LAUTENBERG: Have interested parties' comments or suggestions been considered in this matter? If so, how? If not, why not?

ANSWER: We have not requested views from interested parties on this matter since our last response to this question. As we indicated at that time, the Commission solicited and considered the initial comments and suggestions of interested parties in Alternative Methods of Accounting for Railroad Track Structures, 367 I.C.C. 157, 173 (1983) and, more recently in Ex Parte No. 393 (Sub-No. 1), Standards for Railroad Revenue Adequacy, 3 I.C.C.2d 261, 284-288 (1986).

SENATOR LAUTENBERG: Is the Commission planning to review the change to depreciation accounting for financial reporting as suggested by the RAPB in volume 2, page 49? If so, when? If not, why not?

ANSWER: As we stated in our previous response, the Commission has not made a determination to revisit this issue. In Docket

No. 36988, Alternative Methods of Accounting for Railroad Track Structures, served February 17, 1983, the Commission adopted depreciation accounting (DA), resulting in a write-up of the investment base. The asset base write-up represents amounts previously expensed under replacement, retirement, and betterment (RRB) accounting, and to the extent that the written-up assets are depreciated under DA, it was argued that there is a double write-off of expenses. The Commission decided, however, that there is no double recovery of these costs because the railroads' large revenue shortfalls in recent years clearly exceed the depreciation expenses associated with the write-up of assets to reflect DA. This conclusion was reconsidered and sustained in Ex Parte No. 393 (Sub-No. 1), Standards for Revenue Adequacy.

The Commission's review of these matters in Ex Parte No. 393 (Sub-No. 1), Standards for Railroad Revenue Adequacy, 3 I.C.C.2d (1986), was recently affirmed in Consolidated Rail Corp. vs. U.S., 855 F.2d 78 (3rd Cir. 1988).

SENATOR LAUTENBERG: Does the Commission plan to develop any individual railroad cost of capital estimates? If not, why not? If so, under what circumstances would this be done?

ANSWER: The Commission has no plans to develop cost of capital estimates for individual railroads. The industry-wide cost of capital rate that has been used for several years to determine railroad revenue adequacy is based upon the current market values of the equity and debt securities issued by a select sample of investment grade railroads. Several railroad holding companies, however, have no publicly traded stock with a definable market value and, therefore, individual cost of capital estimates cannot be made for all railroads. As a matter of practice, therefore, we use an industry-wide rate which the RAPB believes we should continue to use. The RAPB's principle on cost of capital is fully compatible with our approach.

COMMISSIONER LAMBOLEY, commenting: In my view, nothing precludes a party from efforts to demonstrate in a given case that industry standards should not apply, and that a carrier's specific cost of capital is more appropriate.

SENATOR LAUTENBERG: What percent of railroads' traffic operates above the revenue to variable cost ratio of 180 percent?

ANSWER: We estimate that between 15 and 20 percent of United States rail traffic moves at revenue to variable cost ratios in excess of 180 percent. These estimates are based on results of the costed railroad waybill sample. This is a statistical sample of railroad movements which contains revenue and estimated cost data.

SENATOR LAUTENBERG: The RAPB recommended the Commission use the "market cost of capital" instead of the "embedded cost of debt." Has the Commission thought of making this change?

ANSWER: The Commission has used the "market cost of capital" (or current nominal cost of capital) for various regulatory applications for some time. For general purpose costing, however, the embedded cost of debt continues to be used. On October 25, 1988, the Commission initiated a rulemaking proceeding, Ex Parte No. 477, Modifications to General Purpose Costing System -- GPCS, which proposed, among other items, the use of current ("market") cost of capital in its general purpose costing system. Comments were solicited from interested parties, and the Commission is in the process of reviewing the evidence filed in response to its request.

SENATOR LAUTENBERG: If market cost were used rather than embedded cost, the RAPB suggested a crosswalk to translate the new revenue to variable cost ratios into ratios comparable to the existing standard. What actions are being taken in this area?

ANSWER: In October 1988 the Commission initiated a rulemaking proceeding, Ex Parte No. 477, Modifications to General Purpose Costing System -- GPCS. This proceeding requested comments on two potential methodologies which could be used to develop such a mechanism in order to maintain a status quo in the amount of rail traffic subject to ICC jurisdiction. Comments were requested, and the Commission is in the process of reviewing the filings of interested parties.

SENATOR LAUTENBERG: As additional shortline/regional railroads develop, the demand for competitive access will increase. Briefly state the Commission's policy on pricing competitive access.

ANSWER: The formation of shortline and regional railroads has not resulted in disputes over joint rates, reciprocal switching, or other forms of competitive access. This conflict-free environment stems from the complementary relationship between the small carriers which serve as feeders and distributors of traffic and the main line carriers which provide the long-haul transportation service. In addition, most of the shortline/regional railroad operators established contractual arrangements with the selling railroads which clearly define access privileges (charges, divisions, reciprocal switching) as part of the sales agreement.

With regard to regulatory-imposed competitive access, in 1985 the Commission voted to adopt a decision in Ex Parte No. 445 (Sub-No. 1), Intermodal Rail Competition, which essentially endorsed the National Industrial Transportation League/Chemical Manufacturers Association/Association of American Railroads agreement on the conditions which would permit it to initiate a proceeding to impose competitive access in a special situation. That agreement and our decision, however, did not address the issue of compensation. While there have not been any proceedings outside of mergers which required the computation of compensation for the price of competitive access, the staff has continued its study of this question. As yet, no methodology for computing compensation has been developed.

COMMISSIONER LAMBOLEY, commenting: The Commission's approach to competitive access seems to conclude with denial of access,[3] or

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[3]For example, in two cases under Ex Parte No. 445 (Sub-No. 1), the Commission's application has been restrictive, and ultimately denied relief for physical access requested by a shipper and carrier in one instance, and for suspension and investigation of cancellation of joint rates, requested by shippers and carriers in another. See Docket No. 30921, Midtec Paper Corporation v. Chicago and North Western Company, 3 I.C.C. 2d 171 (1986), 857 F.2d 1487 (D.C. Cir. 1988) and Suspension Case No. 71380, Cancellation of Joint Rates/Routes on Synthetic Plastics, Conrail (not printed), served October 9, 1987.

approval of restrictive tie-in arrangements in shortline sales[4] in order to avoid the more difficult issue of cost/price determinations required had access been granted. If one truly believes as I do that competition disciplines rates, then the full scope of access issues should be realistically addressed.

SENATOR LAUTENBERG: The RAPB stated that to the extent that costs are a factor in pricing access, incremental costs should be used. Does the Commission agree that incremental costs should be used?

ANSWER: Yes, the Commission agrees with the RAPB's view that incremental cost, in addition to other factors, should be considered in setting compensation for competitive access.

SENATOR LAUTENBERG: Is the Commission developing pricing guidelines for competitive access? If not, why not? If so, what action are you taking in this area?

ANSWER: Establishing pricing guidelines for competitive access requires consideration of a myriad of factors and issues such as the type of access sought, incremental costs, non-incremental costs, ratemaking considerations, and policy objectives which must be met. Thus, the development of a uniform pricing policy for competitive access remains a very difficult issue which the Commission's staff is continuing to study.

The Commission's current policy objective is to set compensation in competitive access proceedings on a case-by-case basis as the need arises by relying on the general guidelines established by the RAPB. This approach was followed in our decision in Finance Docket No. 30000 (Sub-No.16), St. Louis Southwestern Railway Company - Trackage Rights Over Missouri Pacific Railroad Company - Kansas City to St. Louis.

COMMISSIONER LAMBOLEY, commenting: The Commission's approach to competitive access seems to conclude with denial of access,[5] or

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[4]See, for example, Finance Docket No. 31089, Montana Rail Link, Inc.-Exemption Acquisition and Operation-Certain Lines of Burlington Northern Railroad Company, served July 31, 1987 and Finance Docket No. 30915, Otter Tail Valley Railroad Company - Acquisition and Operation Exemption - Burlington Northern Railroad Company, served August 28, 1987; also Docket No. AB-1 (Sub-No. 177), Chicago and North Western Transportation Company-Abandonment and Discontinuance of Service - In Fond Du Lac County, WI, served July 29, 1987.

[5]For example, in two cases under Ex Parte No. 445 (Sub-No. 1), the Commission's application has been restrictive, and ultimately denied relief for physical access requested by a shipper and carrier in one instance, and for suspension and investigation of cancellation of joint rates, requested by shippers and carriers in another. See Docket No. 30921, Midtec Paper Corporation v. Chicago and North Western Company, 3 I.C.C. 2d 171 (1986), 857 F.2d 1487 (D.C. Cir. 1988) and Suspension Case No. 71380, Cancellation of Joint Rates/Routes on Synthetic Plastics, Conrail (not printed), served October 9, 1987.

approval of restrictive tie-in arrangements in shortline sales[6] in order to avoid the more difficult issue of cost/price determinations required had access been granted. If one truly believes as I do that competition disciplines rates, then the full scope of access issues should be realistically addressed.

SENATOR LAUTENBERG: Has the Commission's rulemaking to implement the RAPB recommendations on the cost to be used in abandonment decisions been implemented?

ANSWER: Yes. A final decision implementing the RAPB's findings regarding abandonment costing was served on December 8, 1988. The decision, in Ex Parte No. 274 (Sub-No. 11A), Abandonment Regulations - Costing (Implementation of the Railroad Accounting Principles Board Findings), became effective January 9, 1989.

SENATOR LAUTENBERG: The RAPB made a number of recommendations on how to calculate opportunity cost. How were these dealt with in the Commission's rulemaking?

ANSWER: The decision in Ex Parte No. 274 (Sub-No. 11A) adopted all of the RAPB's findings regarding abandonment costing, including those relating to the calculation of opportunity cost. The decision requires that opportunity cost be determined using the nominal cost of capital rate, and that any projected holding gains (or losses) that would accrue to the carrier from retention of the branch line assets for a one-year period be included as a reduction (or increase) of opportunity cost.

Similarly, the decision in Ex Parte No. 402, Reasonably Expected Costs (Implementation of the Railroad Accounting Principles Board Findings), adopted all of the RAPB's findings regarding surcharge costing. Consistent with the RAPB's findings, the decision requires that return on investment in surcharge cases be calculated in the same manner as opportunity cost in abandonment cases, i.e., use of the nominal cost of capital rate and the recognition of holding gains (or losses).

SENATOR LAUTENBERG: One of RAPB's specific principles was the use of "productivity" in price indices, and that a productivity adjustment be made to the rail cost adjustment factor (RCAF). What is the status of the Commission's decision regarding the application of the productivity measure it develops to the RCAF?

ANSWER: A specific productivity adjustment was adopted in March of this year. Application of the adjustment to the April 1, 1989, RCAF resulted in a productivity adjusted RCAF of 1.048. The RCAF before adjustment was 1.052. All future quarterly RCAF decisions will include a productivity adjustment.

SENATOR LAUTENBERG: Does the Commission believe that productivity gains have been passed on to shippers due to

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[6]See, for example, Finance Docket No. 31089, Montana Rail Link, Inc.-Exemption Acquisition and Operation-Certain Lines of Burlington Northern Railroad Company, served July 31, 1987 and Finance Docket No. 30915, Otter Tail Valley Railroad Company - Acquisition and Operation Exemption - Burlington Northern Railroad Company, served August 28, 1987; also Docket No. AB-1 (Sub-No. 177), Chicago and North Western Transportation Company-Abandonment and Discontinuance of Service - In Fond Du Lac County, WI, served July 29, 1987.

competition? How will the President's sunset provision affect productivity?

ANSWER: Competition among railroads and with other transportation modes compels the pass through of productivity gains on competitive traffic. These productivity gains are reflected in the rate levels of competitive traffic. Competition forces each carrier to lower these rates as it attempts to retain existing traffic and attract new traffic.

Captive shippers argue that they, however, have not benefitted from productivity growth and consequently their rates have always been subject to the full RCAF increase. The productivity adjustment adopted in Ex Parte No. 290 (Sub-No. 4), Railroad Cost Recovery Procedures - Productivity, should resolve this disparity in cost recovery.

Railroad productivity in recent years has been relatively high compared to other sectors of the economy. In our opinion, sunset of the agency would have no impact on productivity growth.

SENATOR LAUTENBERG: Does this apply to captive shippers that do not have competitive alternatives? Please explain.

ANSWER: The recent inclusion of a productivity adjustment in the quarterly rail cost adjustment factor process ensures that maximum rate levels achieved through this process reflect productivity improvements. Since the RCAF is commonly used to adjust the rate levels of both captive and non-captive traffic, productivity improvements are reflected in those rate levels.

SENATOR LAUTENBERG: What is the status of the Commission's rulemaking effort on refinements necessary to make the transition from Rail Form A to Uniform Rail Costing System (URCS)?

ANSWER: The Commission has two rulemaking proceedings in progress which specifically address changes in the Commission's general purpose costing system. The first is Ex Parte No. 477, Modifications to General Purpose Costing System -- GPCS. This proceeding addresses the RAPB's recommendations of following depreciation accounting, using the current cost of capital, removing taxes from the investment base, and the need for a transitional crosswalk to mitigate the impact of these changes on the threshold for Commission jurisdiction in rate matters. The second proceeding which must be completed before URCS can be implemented, is Ex Parte No. 431 (Sub-No. 1), Adoption of the Uniform Railroad Costing System as a General Purpose Costing System for All Regulatory Costing Purposes. This proceeding deals primarily with the statistical procedures which underlie the URCS variability study. Comments have been received in Ex Parte No. 477, and initial comments and replies have been received in Ex Parte No. 431 (Sub-No. 1). The Commission is in the process of evaluating the filings in both proceedings.

SENATOR LAUTENBERG: What is the timetable for implementing URCS?

ANSWER: Comments and replies on Ex Parte No. 431 (Sub-No. 1), Adoption of the Uniform Railroad Costing System as a General Purpose Costing System for All Regulatory Costing Purposes have been received and are under review. If the changes proposed in Ex Parte No. 477, Modifications to General Purpose Costing System -- GPCS are adopted, some redesign of the URCS programs will be necessary. Our target for implementing URCS is the end of this calendar year.

NEGOTIATED RATES

SENATOR LAUTENBERG: What is the status of the National Industrial Transportation League's petition on negotiated rates?

ANSWER: The League's petition was the subject of a special Commission open voting conference held on May 2, 1989. At that conference the Commission decided to issue a further decision clarifying the Ex Parte No. MC-177 policy statement on negotiated rates, National Industrial Transportation League Petition to Institute Rulemaking on Negotiated Motor Common Carrier Rates. As requested by the League, the Commission disavowed any suggestion that ICC decisions in negotiated rates cases are merely advisory. Furthermore, negotiated rates cases will be accepted without court referrals, and all decisions will be issued under the ICC's primary jurisdiction subject to judicial review under the arbitrary and capricious standard accorded to all agency decisions by the courts. The Commission voted to hold in abeyance the League's request for a declaratory order stating that it is an unreasonable practice for a motor carrier to do business on the basis of a negotiated rate if it fails to file that rate. Instead, the Commission decided to continue to handle negotiated rates cases on a case-by-case basis under the clarified policy statement and revisit the need for a declaratory order at a later date.

RAIL RATE CASE DECISIONS

SENATOR LAUTENBERG: How many rate case proceedings are still before the Commission?

ANSWER: As of May 12, 1989, there were 13 cases pending before the Commission that were being processed in 10 proceedings.

SENATOR LAUTENBERG: How does this compare to the last three years?

ANSWER: On January 1, 1986, there were 87 cases pending. Three new complaints were filed during the year, and 38 cases were closed leaving a year-end balance of 52 cases.

On January 1, 1987, there were 52 cases pending. Two cases were reopened on remand during the year, and 29 were closed leaving a year-end balance of 25 cases.

On January 1, 1988, there were 25 cases pending. One new complaint was filed during the year, and 13 cases were closed leaving a year-end balance of 13 cases.

On January 1, 1989, there were 13 cases pending. One new filing has been received as of May 12, and one case has been disposed of, leaving a 13-case balance.

SENATOR LAUTENBERG: In summary, what are the major rate case proceedings still in front of the Commission?

ANSWER: A summary of the pending cases follows:

COAL

No. 37038	Bituminous Coal, Hiawatha, UT to Moapa, NV, consolidated with No. 37409, Aggregate Volume Rates on Coal, Acco, UT to Moapa, NV

No. 37063 No. 38025S Ex. P. 357	Increased Rates on Coal, L&N, consolidated with Dayton Power & Light v. L&N, and Increased Freight Rates and Charges, Nationwide-8 Percent
No. 37931S	Metropolitan Edison Co. v. Conrail
No. 38301S	Coal Trading Corp. et al. v. B&O
No. 38301S (Sub-No. 1)	Westmoreland Coal Sales Co. v. D&RGW
No. 40224	Iowa Power and Light Co. v. BN

NON-COAL

No. 37478	Amstar Corp. v. AT&SF Ry.
No. 37626	Consolidated Papers, Inc. v. C&NW
No. 38238S	McGraw Edison Co. v. Alton & Southern Ry.
No. 38239S	Amstar Corp. v. The Alabama Gr. Southern

SENATOR LAUTENBERG: Does the Commission have a timetable for clearing the remaining cases? If so, what is it?

ANSWER: The Commission is proceeding as expeditiously as possible to clear the docket of old cases. We have had great success--reducing the docket from 87 to 13 cases (including new filings) in 3 years.

The remaining cases are, as one would expect, the most highly contentious and the most difficult. In six, the records are closed and we are proceeding to coordinated decisions as quickly as possible (Nos. 37038, 37409, 38301S, 38301S (Sub-No. 1), 37478, and 37626). In four others, the records are still open (Nos. 37063, 38025, Ex Parte No. 357, and No. 38239S). We are attempting, within the bounds of due process, to resolve various procedural disputes and close the records so we can proceed to decision. Because judicial review typically is sought in these cases, we must temper our desire to develop the records quickly.

In one, No. 38238S, we are holding the proceeding in abeyance at the request of both parties to permit settlement negotiations to take place. In another, No. 37931S, we issued our final decision on March 22, 1989, but we offered the complaining shipper the opportunity to reopen the record on one aspect of the case it had failed to prove. While we gave the complainant 20 days to do so, it has since asked for and been granted a 60-day extension.

Finally, one new case (No. 40224) was filed on April 27, 1989. Discovery is just beginning, and we cannot predict when the record will close.

RAIL ABANDONMENTS

SENATOR LAUTENBERG: Please update the table on mileage filed and granted approval for abandonment for the past three years, on page 774 of last year's Senate Hearing.

ANSWER: The following table provides the amount of mileage filed and granted approval for abandonment for the past three years:

	Number Filed	Mileage	Number Granted	Mileage*
FY - 86				
Applications	52	1,595.96	52	1,239.80
Conrail-NERSA	89	294.90	65	177.55
Exemption Petitions	93	861.00	56	324.25
Exemption Notices	30	221.00	43	346.25
TOTAL	264	2,972.86	216	2,087.85
FY - 87				
Applications	38	1,015.35	22	702.66
Conrail-NERSA	22	192.92	37	115.57
Exemption Petitions	73	816.65	88	976.30
Exemption Notices	50	475.80	27	138.08
TOTAL	183	2,500.72	174	1,932.61
FY - 88				
Applications	42	1,441	36	1,166
Conrail-NERSA	8	29	11	127
Exemption Petitions	46	737	43	807
Exemption Notices	84	1,183	71	897
TOTAL	180	3,390	161	2,997
FY - 89 (First 6 Months)				
Applications	18	290	19	507
Conrail-NERSA	2	25	2	2
Exemption Petitions	20	413	19	266
Exemption Notices	60	546	68	605
TOTAL	100	1,274	108	1,380

* The filed versus granted numbers do not correlate because cases may be filed in one year but decided in the next.

SHORTLINE OPERATIONS

SENATOR LAUTENBERG: Please update the list of new Class III rail carriers that have been created since the Staggers Act, the amount of track miles for each, and the amount of freight carried, on pages 776-780 of last year's Senate Hearing.

ANSWER: The following list shows regional and shortline railroads, created since Staggers, which are currently operating.

REGIONAL RAILROADS FORMED SINCE 1980

RAILROAD	MILES	CARLOADS
New York, Susquehanna & Western Rwy.	444	9,415
Kyle Railroad	427	15,327
Iowa Interstate Railroad, Ltd.	605	48,080
SouthRail Corp.	710	68,275
Chicago, Central & Pacific Railroad	788	106,000
Wisconsin & Calumet Railroad	260	5,200
Washington Central Railroad Co.	335	19,000
Dakota, Minnesota & Eastern Railroad	965	43,000
MidSouth Rail Corp.	418	145,200
Paducah & Louisville Railway	309	152,000
Wisconsin Central Ltd.	1,969	39,000
Red River Valley & Western Railroad Co	653	12,067
Chicago, Missouri & Western Railway	637	46,947
Montana Rail Link	994	225,500
Buffalo & Pittsburgh Railroad, Inc.	400	50,000
TOTALS	9,914	985,011

15 Railroads listed

SHORTLINE RAILROADS FORMED SINCE 1980

RAILROAD	MILES	CARLOADS
Fordyce & Princeton Railroad	57	12,871
Mahoning Valley Railway, The	56	4,465
Keokuk Junction Railway	161	1,044
Iowa Northern Railroad	141	14,276
Farmrail Corp.	85	857
Eastern Shore Railroad	74	8,548
Sidney & Lowe Railroad	7	158
Parr Terminal Railroad	4	2,800
Golden Triangle Railroad	17	3,360
Indiana Hi-Rail Corp.	204	10,337
Great River Railroad	32	300
Turtle Creek Industrial Railroad	11	353
Dakota Rail Inc	44	659
D&I Railroad	130	12,562
Port of Royal Slope Railroad	26	195
New England Southern Railroad Co., Inc.	101	2,626
Brandywine Valley Railroad	6	7,957
Pioneer Valley Railroad	26	3,304
Cairo Terminal Railroad	30	621
Natchez Trace Railroad	55	3,650
Tradewater Railway	92	18,000
Bay Colony Railroad Corp.	105	1,928
Texas North Western Railway	43	2,151
Buffalo Southern Railroad	33	476
Delaware Coast Line Railroad	23	1,045

RAILROAD	MILES	CARLOADS
Ohi-Rail Corp.	39	242
Denver Terminal Railroad Company	3	517
Landisville Railroad	3	191
Knox & Kane Railroad	78	95
Saltville Railroad	5	0
Indian Creek Railroad	5	1,100
Batten Kill Railroad	35	454
Pocono Northeast Railway Inc.	115	1,483
J & J Railroad	9	338
Tennken Railroad	51	6,063
Vandalia Railroad	3	247
Caney Fork & Western Railroad	75	1,613
West Shore Railroad Corp.	12	30
Panther Valley Railroad Corp.	28	1,250
Jackson & Southern Railroad	29	245
East Tennessee Railway Corp.	11	3,175
Old Augusta Railroad	3	9,621
Midland Terminal Company, The	4	8,072
New York Cross Harbor Railroad Term.	10	5,115
Shore Fast Line	58	1,617
Anthracite Railway	29	1,121
Somerset Railroad Corp.	16	21,705
Tonawanda Island Railroad	3	94
Cedar Valley Railroad	129	10,619
Waccamaw Coast Line Railroad Co., Inc.	14	5,500
Iowa Southern	66	1,559
Red Springs & Northern Railroad	12	721
Brownsville & Rio Grande Intl. Railroad	33	4,788
Cadillac & Lake City Railway	68	60
Nittany & Bald Eagle Railroad	47	1,205
Blue Mountain & Reading Railroad	13	733
Blue Rock Transportation Co.	6	88
San Diego & Imperial Valley Railroad	40	4,645
North Shore Railroad	43	1,095
Peoria, Peoria Heights & Western RR.	7	220
Willamette Valley Railroad	7	896
Plymouth Shortline Ltd.	1	25
Appanoose County Community Railroad	12	221
Border Pacific Railroad	32	278
Logansport & Eel River RR Museum	3	0
MNVA Railroad, Inc.	139	3,949
Wilmington & Western Railway Corp.	10	200
Twin State Railroad Company	27	1,156
Fairmont & Western Railroad	10	164
Ashtabula, Carson & Jefferson Railroad	7	980
Eureka Southern Railroad	160	5,544
Sterling Belt Line Railway	1	25
Huntsville & Madison County RR Authority	13	415
Nicolet Badger Northern Railroad	38	1,259
Coe Rail	8	200
West Tennessee Railroad	42	5,663
Central Montana Rail	95	1,670
Mississippi Delta Railroad	58	5,109
Pioneer Railroad Company	17	800
AT&L Railroad	48	1,798
Nash County Railroad Corp.	20	3,157

RAILROAD	MILES	CARLOADS
Walking Horse & Eastern Railroad	34	1,500
MG Rail	4	4,007
Dakota Southern Railway	219	769
N. D. C. Railroad Company	3	250
Burlington Junction Railway	2	947
Borinstein Railroad	1	0
M Line Railroad, The	2	1,027
Staten Island Railway Corp.	10	1,607
Bloomer Line, The	36	1,944
Pigeon River Railroad	14	417
Cimarron River Valley Railway	25	130
Jefferson Warrior Railroad	9	14,562
Youngstown & Austintown Railroad	5	788
Port Royal Railroad	25	1,681
Allegheny Railroad	154	4,833
Indiana & Ohio Railway, The	26	2,275
Lackawanna Valley Railroad	25	777
Rarus Railway Corp.	26	2,170
Mississippian Railway Cooperative, Inc.	24	714
Huron & Eastern Railway	140	1,774
Montana Western Railway Co., Inc.	52	10,615
Copper Basin Railroad	68	12,500
Ashland Railway Co.	45	1,435
Alabama & Florida Railroad	78	5,706
Carolina Rail Services, Inc.	1	6,428
Nashville & Ashland City RR	1	0
Indiana Rail Road, The	132	14,000
Wilmington Terminal Railroad, Inc.	8	10,863
Newburgh & South Shore Railroad	3	2,644
McCormick, Ashland City & Nashville RR C	28	700
New Hampshire Northcoast Corp.	31	5,000
Florida Central Railroad Co.	61	4,019
Nashville & Eastern Railroad Corp.	114	7,230
Fore River Railway	2	435
Chillicothe-Brunswick Rail Maint. Auth.	37	812
Rocky Mountain Railcar and Railroad, Inc.	34	5
Sequatchie Valley Railroad	39	3,775
Central Indiana & Western Railroad	9	1,563
Rochester & Southern Railroad, Inc.	121	15,241
Gloster Southern Railroad Co.	74	2,597
Otter Tail Valley Railroad	170	4,906
Ohio Southern Railroad	34	1,500
Arkansas & Missouri Railroad	145	22,461
Oil Creek & Titusville Lines	17	197
Austin & Northwestern Railroad Co.	163	7,000
Indiana & Ohio Eastern	56	1,595
Georgia Northeastern Railroad Co., Inc.	67	8,000
Kalamazoo, Lake Shore & Chicago Railway	14	0
MidLouisiana Rail Corporation	113	13,300
Terre Haute, Brazil & Eastern R. R.	38	3,000
Mid Atlantic Railroad Co., Inc.	78	6,300
KWT Railroad, Inc.	63	4,277
Georgia Woodlands Railroad Company	18	3,850
Oklahoma Central Railroad Co.	1	0
Sisseton Southern Railway Company	38	520
Wyoming & Colorado Railroad	124	0

RAILROAD	MILES	CARLOADS
Dunn-Erwin Railway Corp.	5	1,000
Tioga Central Railroad Co.	28	56
Mid-Michigan Railroad, Inc.	67	7,000
Great Walton Rail Company	10	632
Mt. Hood Railroad	22	1,400
Aberdeen, Carolina and Western Rwy. Co.	35	832
Indiana & Ohio Central RR., Inc.	47	4,563
Fremont, West Point & Pacific Rwy., Inc.	40	1,800
Columbia Terminal	21	568
Carthage, Knightstown & Shirley Railroad	24	44
Pee Dee River Railway Corp.	20	1,200
Seminole Gulf Railway, L. P.	118	14,500
Wiregrass Central RR Co	23	4,000
Florida Midland RR Co.	41	4,100
Louisiana & Delta Railroad, Inc.	99	7,349
Florida West Coast Railroad, Inc.	45	8,000
Lewis & Clark Railway Company	30	137
North Carolina & Virginia Railroad Co	52	4,500
Golden Cat Railroad Corp., The	11	250
Grainbelt Corporation	248	1,761
R. J. Corman Railroad Corp.	20	1,200
South Carolina Central RR. Co., Inc.	56	23,000
R. J. Corman RR - Memphis Line	62	5,700
Central Michigan Railway Company	225	19,641
Poseyville & Owensville Railroad Co Inc	11	875
Kiamichi Railroad Co.	247	20,727
Connecticut Central Railroad	17	936
Ottumwa Terminal Railroad Co.	4	30
Southeast Kansas Railroad Co.	104	600
Shamokin Valley Railroad Co.	27	750
Arizona Eastern Railway Company	135	0
Ohio Central Railroad Company	72	4,000
Willamina & Grand Fork Railway Co.	5	400
Tennessee Southern Railroad Co., Inc.	46	650
Warrenton Railroad Co.	3	150
Florida Northern Railroad Company, Inc.	27	2,100
Southern Alabama Railroad Co., Inc.	15	2,000
Great Smoky Mountains Railway, Inc.	67	900
Napa Valley Railroad Company	22	0
Olympic Railroad Co., The	2	350
Fort Worth & Western Railroad Co.	8	3,000
Fox River Valley Railroad Co.	214	87,000
TOTALS	8,649	706,020

179 Railroads Listed

SENATOR LAUTENBERG: Please update the list of all the Class II and Class III rail carriers that have ceased to exist since passage of Staggers and the reasons for their passing, on pages 780-783 of last year's Senate Hearing.

ANSWER: Following are a list of new shortlines which totally ceased service and a list of those which ceased service, but where a new carrier resumed full or partial service on the line.

NEW SHORTLINES WHICH CEASED OPERATIONS

Railroad	Operating Years	Miles	Former Railroad	Comments
Ashuelot Line (Green Mountain)	1982-83			
Elkhorn & Walworth	1983-84	38	Milwaukee Rd	Insurance problems
Falls Creek	1980-88	4.5	Penn Central	
Franklin County	1985-87	10	Seaboard	Low volume; poor track
Fulton County	1981-85	15	Erie Lackawanna	Connection disconnected
Jersey Central Terminal Co.	1981		Penn Central	Lease terminated
Keota-Washington	1984-86	15	Rock Island	
Marion County	1984-85	6.3	Seaboard	Shipper went out of business
Minneapolis Valley	1984-85			
Morrison Creek	1982-84			
Northern Missouri	1984-86	153	Norfolk & Western	Bridge washout
OHI-Rail	1982-83	39	Conrail	
Ontario Eastern	1982-83	20	Conrail	Shipper went out of business
Prairie Central	1981-84	161	Penn Central	Undercapitalized
Raccoon River	1981	10	Milwaukee Rd	Low volume; high car costs
Seattle & North Coast	1982-84	51	Milwaukee Rd	Bankruptcy 6/84

NEW SHORTLINES WHICH CEASED OPERATIONS BUT WHERE SERVICE WAS RENEWED

Railroad	Operating Years	Miles	Former Railroad	New Operator	Current Miles
Andalusia & Conecuh	1983-87	8.7	Central of Georgia	Ala. & Fla. Rwy	2
Brandon (Bellville-Manhattan)	1981-82	53	Rock Island	Kyle Railways	53
Chelatchie Prairie	1981-85	30	Longview, Portland, & Northern	Lewis & Clark	30
Chillicothe Southern	1986-87	39	Norfolk & Western	Chillicothe-Brunswick Rail Maint. Authority	39
Enid Central	1982-83	64	Rock Island	Okla-Kansas-Texas	9
Gulf & Mississippi	1985-88	732	Ill. Central Gulf	Southrail	732
Indiana Midland	1985-86	24	Penn Central	Carthage, Knightstown & Shirley	24
Iowa Railroad	1981-84	552	Rock Island	Iowa Interstate	552
Johnsonburg, Kane, W.& I.	1982-85	55	Penn Central	Allegheny	55
Mahoning & Hazelton	1984-85	11	Reading	Panther Valley	11
Moxahala Valley	1983-86	32	Penn Central	Ohio Southern	32
Okarche Central	1982-83	59	Rock Island	OKT	59
Ottumwa Connecting	1984-85	1.89	Norfolk & Western	Colorado & Eastern	1.89
South Central Arkansas	1982-84	56	Rock Island	E. Camden & Highland	25
Wisconsin Western	1982-85	115	Milwaukee Road	Wisconsin & Calumet	115

RATE OF RETURN

SENATOR LAUTENBERG: List the average rate of return for Class I, II, and III rail carriers for years 1985 through 1988 and the ICC's necessary rate of return for those years for a railroad to be revenue adequate.

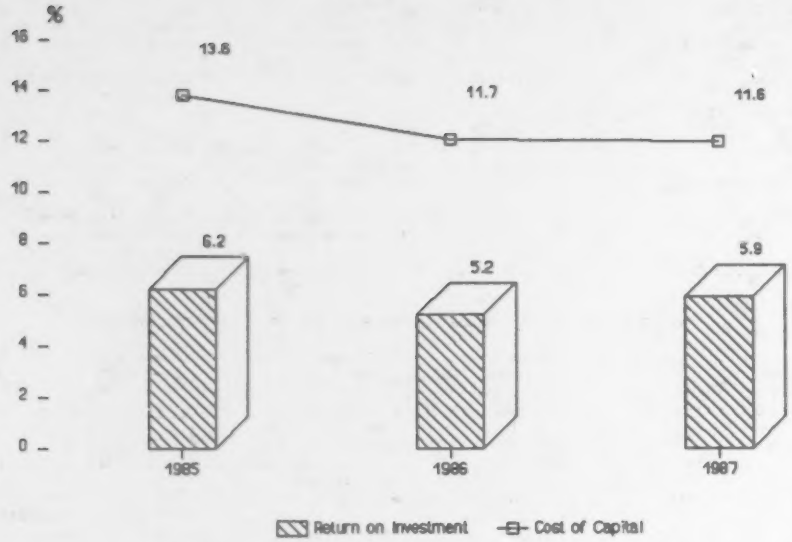
ANSWER: The following bar chart shows the composite rate of return on net investment (ROI) for Class I railroads for each of the years 1985 through 1987. The Commission's revenue adequacy standards for each year (the industry-wide cost of capital) are also shown in the graph.

Also included is a schedule showing revenue adequacy determinations for each Class I railroad for each year from 1985 through 1987.

Rate of return data for 1988 for all Class I railroads are not yet fully available.

The Commission discontinued reporting requirements for Class II and III railroads in 1981 and 1980, respectively. Therefore, there are no rate of return data available for these railroads.

Composite Return on Investment For Class I Railroads 1985 - 1987



Notes on Bar Chart

The ROI's shown reflect two revisions adopted by the Commission in its decision in Ex Parte No. 393 (Sub-No. 1), Standards for Railroad Revenue Adequacy, served December 31, 1986. These are:

(1) The use of ratable depreciation accounting in lieu of retirement-replacement-betterment (RRB) accounting.

(2 Accumulated deferred taxes are subtracted from the net investment base.

CLASS I RAILROAD REVENUE ADEQUACY DETERMINATIONS (1985 - 1987)
(UTILIZING RETURN ON INVESTMENT EQUAL TO COST OF CAPITAL)

	1985	1986	1987
Atch. Topeka & Santa Fe	4.3	4.2	3.6
Baltimore & Ohio	4.3	Became part of CSX	
Boston & Maine	0.0	0.0	0.0
Burlington Northern	10.3	5.7	9.5
Chesapeake & Ohio	11.1	Became part of CSX	
Chicago & Northwestern	2.0	2.1	3.2
Conrail	4.9	4.3	4.3
CSX		5.5	5.9
Delaware & Hudson	0.0	0.0	0.0
Denver & Rio Grande West	5.6	4.5	2.3
Elgin Joliet & Eastern	0.0	No longer Class I	
Florida East Coast	5.5	7.0	6.8
Grand Trunk Western	1.6	0.0	0.0
Illinois Central Gulf	2.4	4.0	3.8
Kansas City Southern	9.2	9.0	11.0
Missouri Kansas Texas	2.2	1.9	6.8

Missouri Pacific	6.2	Became part of Union Pacific	
Norfolk & Western	9.1	Became part of Norfolk Southern	
Norfolk Southern		7.4	7.4
St Louis Southwestern	3.2	4.3	6.3
Seaboard	8.0	Became part of CSX	
Soo Line	1.5	1.7	1.3
Southern	8.1	Became part of Norfolk Southern	
Southern Pacific	0.7	0.0	1.0
Union Pacific	7.3	8.6	10.0
Western Pacific	0.0	Became part of Union Pacific	
COST OF CAPITAL	13.6	11.7	11.6

All data from Annual Reports to the Commission and Supplements to those reports except for the following which are based on original costs before write-downs that occurred due to reorganizations:

Boston & Maine 1985 and 1986
Conrail 1985 and 1986
Delaware & Hudson 1985 and 1986
Seaboard 1985
Chicago & Northwestern 1985 and 1986
Western Pacific 1985

1985 data for Baltimore & Ohio, Chesapeake & Ohio, Seaboard, and Chicago & Northwestern exclude certain one-time special charges.

1986 data for Illinois Central Gulf, Atchison Topeka & Santa Fe, Burlington Northern, Kansas City Southern, St. Louis Southwestern, Soo Line, Southern Pacific, and Union Pacific exclude certain one-time special charges.

1987 data for Norfolk Southern exclude certain one-time special charges.

UNIFORM RAIL COSTING SYSTEM

SENATOR LAUTENBERG: What were the findings of the evaluation of URCS that was to be completed in June 1987? (Provide executive summary.)

ANSWER: In early 1987, the Railroad Accounting Principles Board (RAPB) recommended to the Commission that an independent review of the regression procedures supporting the calculation of variable costs in the .980 Rail Cost Study be initiated. This review was to address several items related solely to the regression study. To this end, the Commission employed as a consultant, Professor Daniel Westbrook of Georgetown University, an expert in statistical techniques who previously had conducted independent research on URCS. Dr. Westbrook had the unanimous support of both the railroad and shipper representatives on the RAPB. At the time the review was undertaken, we and the consultant believed that a final report on the results of his review could be released in June of 1987. However, after an in-depth analysis of the 1980 study, he concluded that the regressions could be improved by the application of contemporary state-of-the art statistical procedures, and that such improvements would be necessary to address the concerns of the RAPB. Accordingly, a complete overhaul of the URCS regression procedures was necessary before a final report could be released. That study was completed and released for informal

comment in July of 1988. These informal comments were reviewed and where appropriate, changes were made in the regression procedures. A revised report was released for formal comment in a rulemaking proceeding in January 1989.

STAFFING

SENATOR LAUTENBERG: Provide for the record the Commission's staffing levels for fiscal year 1987 by office and by month (both full-time equivalents and part-time employees). Also include this information for fiscal years 1988 and 1989 to date.

ANSWER: The following table displays the number of full-time permanent and other employees by Bureau and Office for the beginning of each month for Fiscal years 1987, 1988, and 1989 to date.

FY 1987 ON-BOARD EMPLOYMENT

		OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
Commissioners and their Offices	Full-time Permanent	39	39	39	39	41	40	39	40	39	39	39	40
	Other	5	4	4	4	2	1	1	1	1	0	1	2
	TOTAL	44	43	43	43	43	41	40	41	40	39	40	42
Secretary	Full-time Permanent	68	68	68	72	73	72	71	71	73	72	70	72
	Other	16	16	15	11	11	11	12	12	12	10	10	9
	TOTAL	84	84	83	83	84	83	83	83	85	82	80	81
General Counsel	Full-time Permanent	22	22	22	22	20	20	21	22	23	24	24	24
	Other	2	2	2	2	2	2	2	2	2	2	2	2
	TOTAL	24	24	24	24	22	22	23	24	25	26	26	26
Proceedings	Full-time Permanent	122	121	121	119	118	119	118	117	117	116	115	115
	Other	4	3	3	3	2	2	2	2	2	2	2	5
	TOTAL	126	124	124	122	120	121	120	119	119	118	117	120
Hearings	Full-time Permanent	5	5	5	5	5	5	5	5	5	5	5	5
	Other	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	5	5	5	5	5	5	5	5	5	5	5	5
Public Assistance	Full-time Permanent	12	12	13	13	13	14	14	14	13	13	13	13
	Other	0	0	0	0	0	0	0	0	1	1	1	1
	TOTAL	12	12	13	13	13	14	14	14	14	14	14	14
Transportation Analysis	Full-time Permanent	29	29	28	28	28	28	28	27	28	29	28	27
	Other	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	29	29	28	28	28	28	28	27	28	29	28	27
Accounts	Full-time Permanent	75	74	73	72	71	71	71	69	71	70	68	68
	Other	6	6	6	7	7	7	7	7	4	4	4	3
	TOTAL	81	80	79	79	78	78	78	76	75	74	72	71
Traffic	Full-time Permanent	69	69	68	68	69	71	71	71	71	71	70	69
	Other	0	0	0	0	0	0	0	0	0	0	0	1
	TOTAL	69	69	68	68	69	71	71	71	71	71	70	70
Compliance and Consumer Assistance	Full-time Permanent	189	189	193	195	196	200	198	198	197	198	200	201
	Other	6	4	6	7	9	9	8	9	9	9	5	6
	TOTAL	195	193	199	202	205	209	206	207	206	207	205	207
Managing Director	Full-time Permanent	68	68	68	69	69	69	70	71	71	70	71	71
	Other	5	5	4	5	5	5	5	5	5	5	5	5
	TOTAL	73	73	72	74	74	74	75	76	76	75	76	76
TOTAL	Full-time Permanent	698	696	698	702	703	709	706	705	708	707	703	705
	Other	44	40	40	39	38	37	37	38	36	33	30	34
	TOTAL	742	736	738	741	741	746	743	743	744	740	733	739

FY 1988 ON-BOARD EMPLOYMENT

		OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.
Commissioners and their Offices	Full-time Permanent	41	41	41	41	41	41	40	40	40	40	41	41
	Other	0	0	0	0	0	0	0	0	0	2	2	1
	TOTAL	41	41	41	41	41	41	40	40	40	40	43	42
Secretary	Full-time Permanent	74	75	75	75	77	74	74	79	70	69	69	73
	Other	8	9	9	9	7	11	11	5	9	9	9	9
	TOTAL	82	84	84	84	84	85	85	84	79	78	78	82
General Counsel	Full-time Permanent	24	24	23	23	24	24	23	24	24	23	24	23
	Other	2	2	2	2	1	1	1	1	1	1	2	2
	TOTAL	26	26	25	25	25	25	24	25	25	24	26	25
Proceedings	Full-time Permanent	113	113	112	114	115	112	112	109	107	110	110	110
	Other	6	6	5	4	2	2	2	2	2	2	2	5
	TOTAL	119	119	117	118	117	114	113	111	109	112	112	115
Hearings	Full-time Permanent	5	5	5	5	5	5	5	5	5	5	5	5
	Other	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	5	5	5	5	5	5	5	5	5	5	5	5
Public Assistance	Full-time Permanent	13	13	13	13	13	13	13	13	13	13	13	13
	Other	1	1	1	1	1	1	1	1	1	1	1	1
	TOTAL	14	14	14	14	14	14	14	14	14	14	14	14
Transportation Analysis	Full-time Permanent	26	26	27	27	27	28	27	27	27	27	28	28
	Other	0	0	0	0	0	0	0		1	1	1	1
	TOTAL	26	26	27	27	27	28	27	27	28	28	29	29
Accounts	Full-time Permanent	67	65	65	63	63	62	61	61	61	60	60	60
	Other	2	2	2	2	2	2	2	2	2	2	2	3
	TOTAL	69	67	67	65	65	64	63	63	63	62	62	63
Traffic	Full-time Permanent	67	67	67	67	66	66	65	65	62	61	61	59
	Other	1	1	1	1	1	1	1	0	0	0	0	0
	TOTAL	68	68	68	68	67	67	66	65	62	61	61	59
Compliance and Consumer Assistance	Full-time Permanent	200	204	203	198	196	198	197	197	198	197	196	196
	Other	6	3	4	6	5	5	5	6	7	7	7	7
	TOTAL	206	207	207	204	201	203	202	203	205	204	203	204
Managing Director	Full-time Permanent	70	69	69	70	71	70	72	72	71	71	71	72
	Other	5	5	5	5	5	5	5	4	3	3	3	2
	TOTAL	75	74	74	75	76	75	77	76	74	74	74	74
TOTAL	Full-time Permanent	700	702	700	696	698	693	689	692	678	676	678	680
	Other	31	29	29	30	24	28	28	21	26	26	29	31
	TOTAL	731	731	729	726	722	721	717	713	704	702	707	711

FY 1989 ON-BOARD EMPLOYMENT

		OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY
Commissioners and their Offices	Full-time Permanent	41	41	43	43	44	44	42	42
	Other	0	0	0	0	0	0	0	0
	TOTAL	41	41	43	43	44	44	42	42
Secretary	Full-time Permanent	74	72	73	74	75	77	77	77
	Other	9	10	10	5	5	3	3	3
	TOTAL	83	82	83	79	80	80	80	80
General Counsel	Full-time Permanent	23	23	22	23	22	24	25	25
	Other	2	2	2	2	2	2	2	2
	TOTAL	25	25	24	25	24	26	27	27
Proceedings	Full-time Permanent	110	111	111	112	110	109	110	109
	Other	6	6	5	5	5	5	4	4
	TOTAL	116	117	116	117	115	114	114	113

Hearings	Full-time Permanent	5	5	5	5	5	5	5	5
	Other	0	0	0	0	0	0	0	0
	TOTAL	5	5	5	5	5	5	5	5
Public Assistance	Full-time Permanent	13	13	14	14	13	13	13	11
	Other	1	1	1	1	1	1	1	2
	TOTAL	14	14	15	15	14	14	14	13
Transportation Analysis	Full-time Permanent	28	27	27	25	25	25	26	26
	Other	1	1	1	1	1	2	2	2
	TOTAL	29	28	28	26	26	27	28	28
Accounts	Full-time Permanent	59	59	59	58	61	61	61	61
	Other	2	2	2	2	2	2	2	2
	TOTAL	61	61	61	60	63	63	63	63
Traffic	Full-time Permanent	59	59	58	57	57	57	56	56
	Other	0	0	0	2	2	2	2	2
	TOTAL	59	59	58	59	59	59	58	58
Compliance and Consumer Assistance	Full-time Permanent	196	196	198	196	195	195	192	192
	Other	7	7	7	7	7	6	6	6
	TOTAL	203	203	205	203	202	201	198	198
Managing Director	Full-time Permanent	70	73	71	72	74	72	72	71
	Other	3	3	3	3	3	3	3	4
	TOTAL	73	76	74	75	77	75	75	75
TOTAL	Full-time Permanent	678	679	681	679	681	682	679	675
	Other	31	32	31	28	28	26	25	27
	TOTAL	709	711	712	707	709	708	704	702

SENATOR LAUTENBERG: Update the detailed position chart for all of fiscal year 1988 and to date for fiscal year 1989, page 795.

ANSWER: The updated chart follows:

MONTH	PERMANENT POSITION	PERMANENT OFFICE	DETAILED POSITION	DETAILED OFFICE
December 1987	Attorney-Advisor	Proceedings	Attorney-Advisor through February 1988	Chairman's Office
February 1988	Attorney-Advisor	Proceedings	Attorney-Advisor through October 1988	Chairman's Office
October 1988	Supervsry Attorney	Proceedings	Attorney-Advisor through March 1989	Chairman's Office
October 1988	Secretary-Typing	Transportation Analysis	Statement of Duties through October 1988	Chairman's Office
October 1988	Supervsry Attorney	Proceedings	Attorney-Advisor through January 1989	Commissioner Phillips
January 1989	Congressional Liaison Representative	Government & Public Affairs	Environmental Protection Specialist NTE September 1989	Transportation Analysis
February 1989	Supervsry Attorney	Proceedings	Attorney-Advisor through April 1989	Commissioner Phillips
March 1989	Chief of Policy	Chairman's Office	Director, Office of Government & Public Affairs NTE July 1989	Government & Public Affairs
March 1989	Director, Office of Government & Public Affairs	Government & Public Affairs	Statement of Duties NTE July 1989	Chairman's Office
April 1989	Attorney-Advisor	Proceedings	Attorney-Advisor NTE July 1989	Chairman's Office

May 1989	Personnel Clerk	Office of Personnel	Statement of Duties through mid-May 1989	Chairman's Office
May 1989	Supervsry Attorney	Proceedings	Attorney-Advisor NTE July 1989	Commissioner Phillips

SENATOR LAUTENBERG: Provide the fiscal year 1988 total overtime payments by month, by office and overtime to date for fiscal year 1989.

ANSWER: The monthly overtime costs for each Bureau and Office for Fiscal Year 1988 and for 1989 to date follow:

FY 1988 OVERTIME

BUREAU/OFFICE	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JULY	AUG.	SEPT.	TOTAL
Commissioners and their Offices	$0	$0	$0	$0	$0	$200	$0	$0	$0	$0	$0	$0	$200
Secretary	100	0	0	9,100	600	500	0	4,100	1,100	4,300	0	3,500	23,300
General Counsel	200	0	0	700	500	200	400	800	0	400	100	0	3,300
Proceedings	0	0	0	0	700	0	0	0	0	1,000	700	1,900	4,300
Hearings	0	0	0	0	0	0	0	0	0	0	0	0	0
Public Assistance	0	0	0	0	0	0	0	0	0	0	0	0	0
Transportation Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0
Accounts	0	0	0	0	0	0	0	0	0	0	0	0	0
Traffic	0	0	0	0	0	0	0	0	0	0	0	0	0
Compliance and Consumer Assistance	700	0	0	0	0	0	0	300	100	400	600	500	2,600
Managing Director	1,000	0	0	800	0	600	0	100	0	0	0	3,900	6,400
Total	$2,000	$0	$0	$10,600	$1,800	$1,500	$400	$5,300	$1,200	$6,100	$1,400	$9,800	$40,100

FY 1989 OVERTIME

BUREAU/OFFICE	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	TOTAL
Commissioners and their Offices	$0	$0	$0	$0	$100	$0	$0	100
Secretary	1,400	3,300	2,500	900	0	900	5,700	14,700
General Counsel	200	400	100	400	300	0	0	1,400
Proceedings	500	1,800	900	600	100	0	0	3,900
Hearings	0	0	0	0	0	0	0	0
Public Assistance	0	0	0	0	0	0	0	0
Transportation Analysis	0	0	0	0	0	0	0	0
Accounts	0	0	0	0	0	0	0	0
Traffic	0	600	2,000	0	0	0	0	2,600
Compliance and Consumer Assistance	500	1,500	400	0	300	0	500	0 3,200
Managing Director	1,000	400	200	100	800	800	0	3,300
Total	$3,600	$8,000	$6,100	$2,000	$1,600	$1,700	$6,200	$29,200

SENATOR LAUTENBERG: Provide a copy of the current organization chart, including the names of the head of each office.

ANSWER: The following is the list of heads of Bureaus and Offices and current organization chart:

Office of Government and Public Affairs
Jule R. Herbert, Jr., Acting Director

Office of Human Relations
Alexander W. Dobbins, Director

Office of Inspector General
James J. McKay, Director

Office of the Managing Director
Edward E. Guthrie, Managing Director

Office of the Secretary
Noreta R. McGee, Secretary

Office of the General Counsel
Robert S. Burk, General Counsel

Office of Proceedings
Jane F. Mackall, Director

Office of Hearings
Paul S. Cross, Chief Administrative Law Judge

Office of Public Assistance
Samuel E. Eastman, Director

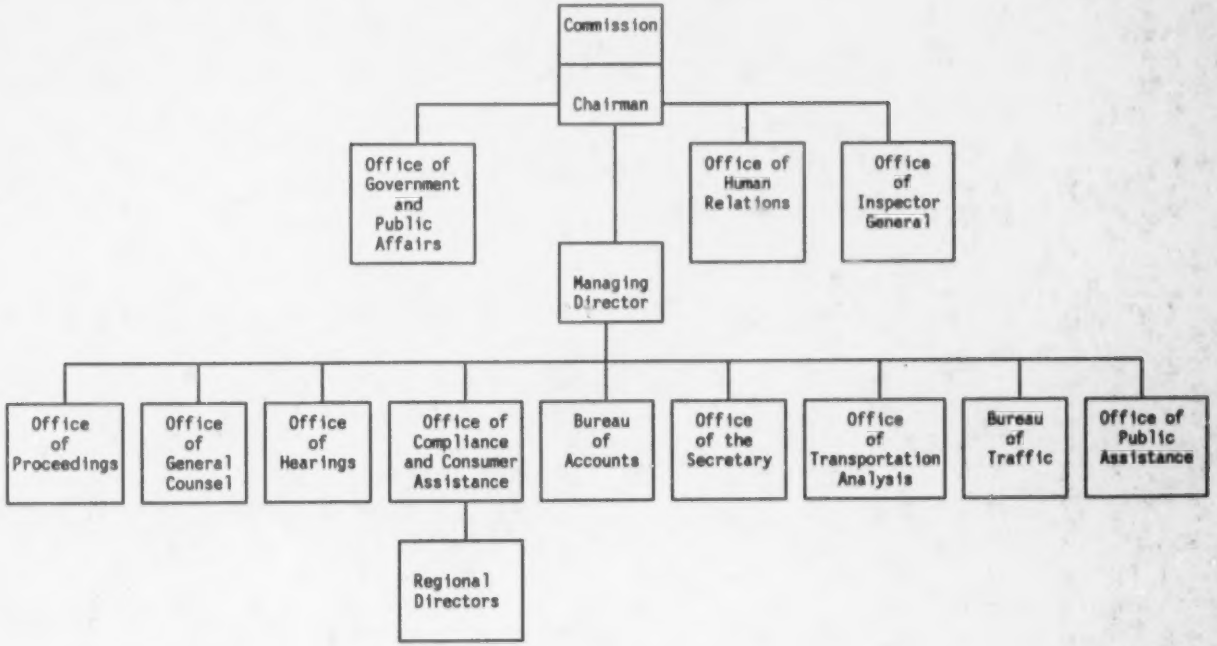
Office of Transportation Analysis
John F. Hennigan, Jr., Director

Bureau of Accounts
Daniel D. Campbell, Director

Bureau of Traffic
Neil S. Llewellyn, Director

Office of Compliance and Consumer Assistance
Bernard Gaillard, Director

INTERSTATE COMMERCE COMMISSION



COMMISSIONERS AND THEIR OFFICES

SENATOR LAUTENBERG: Update the status of the Commissioners' seats and expiration of terms.

ANSWER:

Commissioners and Expiration of Terms

Frederic N. Andre, December 31, 1987
Heather J. Gradison, December 31, 1988
Paul H. Lamboley, December 31, 1989
J. J. Simmons, III, December 31, 1990
Karen Borlaug Phillips, December 31, 1991

SENATOR LAUTENBERG: Provide the name, grade and position of each staff member presently assigned to each Commissioner's office. Also, separately list all members detailed to a Commissioner's office in fiscal year 1988 and to date in 1989.

ANSWER: The following charts provide the name, grade, and position of each staff member currently assigned to each Commissioner's office and information on short-term details of employees to a Commissioner's office for Fiscal Years 1988 and 1989 to date.

Name	Grade	Position
Office of Chairman Gradison:		
David M. Konschnik	ES-6	Chief of Staff
Alexander H. Jordan[1]	ES-6	Staff Advisor
Kathleen D. Ribaudo	GM-15	Attorney Advisor
Paul H. Markoff[1]	GS-14	Attorney Advisor
Hildred I. Smith	GS-12	Confidential Assistant
Linda D. Corsnitz	GS-9	Secretary
Office of Vice Chairman Simmons:		
Van A. Bosco	GM-15	Attorney Advisor
Rickey L. Crawford	GM-15	Attorney Advisor
Thomas T. Vining	GM-15	Attorney Advisor
Hazel M. Lowe	GS-11	Confidential Assistant
Rebecca W. Powell	GS-8	Secretary
Office of Commissioner Andre:		
Maynard Dixon	GM-15	Attorney Advisor
William A. Mullins	GM-15	Attorney Advisor
Elaine R. Burkhardt	GS-11	Confidential Assistant
Lenore M. Cummings	GS-8	Secretary
Office of Commissioner Lamboley:		
Dixie E. Horton	GM-15	Attorney Advisor
Theodore K. Kalick	GM-15	Attorney Advisor
Kathryn L. Winsberg	GM-15	Attorney Advisor
Lucy A. Aloi	GS-11	Confidential Assistant
Lorelei W. Ransome	GS-8	Secretary

Office of Commissioner Phillips:

Debra Ann Weiner	GM-15	Attorney Advisor
Paul E. Tellier[1]	GM-14	Attorney Advisor
Janie A. McCutchen	GS-11	Confidential Assistant
Marie C. Anderson	GS-8	Secretary

[1]Employee detailed from another office.

MONTH	PERMANENT POSITION	PERMANENT OFFICE	DETAILED POSITION	DETAILED OFFICE
December 1987	Attorney-Advisor [Barbara Reideler]	Proceedings	Attorney-Advisor through February 1988	Chairman's Office
February 1988	Attorney-Advisor [Thomas Barry]	Proceedings	Attorney-Advisor through October 1988	Chairman's Office
October 1988	Supervsry Attorney [David Wuehrmann]	Proceedings	Attorney-Advisor through March 1989	Chairman's Office
October 1988	Supervsry Attorney [Thomas Shick]	Proceedings	Attorney-Advisor through January 1989	Commissioner Phillips
October 1988	Secretary-Typing [Mildred Toman]	Transportation Analysis	Statement of Duties through October 1988	Chairman's Office
February 1989	Supervsry Attorney [Richard Armstrong]	Proceedings	Attorney-Advisor through April 1989	Commissioner Phillips
March 1989	Chief of Policy [Jule Herbert]	Chairman's Office	Director, Office of Government & Public Affairs NTE July 1989	Office of Government & Public Affairs
March 1989	Director, Office of Government & Public Affairs [Alexander Jordan]	Office of Government & Public Affairs	Statement of Duties NTE July 1989	Chairman's Office
April 1989	Attorney-Advisor [Paul Markoff]	Proceedings	Attorney-Advisor NTE July 1989	Chairman's Office
May 1989	Personnel Clerk [Geneva Pondexter]	Office of Personnel	Statement of Duties through mid-May 1989	Chairman's Office
May 1989	Supervsry Attorney [Paul Tellier]	Proceedings	Attorney-Advisor NTE July 1989	Commissioner Phillips

CONTRACT COSTS

SENATOR LAUTENBERG: Provide the activity and all contract costs incurred by the Commission in fiscal years 1987 and 1988, projected for fiscal years 1989 and 1990.

ANSWER: The program activity contract costs incurred in Fiscal Years 1987 and 1988 and projected for Fiscal Years 1989 and 1990 follow.

PROGRAM CONTRACTS

BUREAU/OFFICE	CONTRACT	FY 1987 ACTUAL	FY 1988 ACTUAL	FY 1989 PROJECTED	FY 1990 PROJECTED
Secretary:					
	Stenographic Reporting	$6,400	$11,000	$10,000	$10,000
	Courier Services	15,200	16,500	20,000	20,000
	Subtotal	$21,600	$26,500	$30,000	$30,000

Transportation Analysis:	Rail Waybill Sample	100,200	75,000	125,000	125,000
	Rail Services Monitoring	57,700		10,000	52,000
	Supplemental Environmental Services	59,700	5,100	50,000	50,000
	Subtotal	$217,600	$80,100	$185,000	$227,000
Accounts:	Compilation of Transport Statistics (motor and rail)	57,000	48,000	50,000	52,000
	RCAF Productivity Adjustment	144,900			
	Subtotal	$201,900	$48,000	$50,000	$52,000
	Total	$441,100	$154,600	$265,000	$309,000

LABOR RIGHTS

SENATOR LAUTENBERG: What shortline sales are pending?

ANSWER: A list of the pending cases involving shortline sales is set out below. In recent years, shortline sales were mostly handled under the Commission's class exemption procedure, Ex Parte No. 392 (Sub-No. 1), which allows the transaction to go into effect shortly after the filing of a notice at the Commission. Those proceedings by their nature are not pending for long. In some cases, however, parties have filed petitions to revoke those exemptions. The pending petitions to revoke are listed below. More recently, we have received a number of applications under section 11343 for the sale of rail lines by Class I railroads to existing carriers, usually smaller ones. Three of those applications, listed below, are also pending (together with another one pending on appeal), as are three petitions for exemption from section 11343.

We have six petitions for revocation of exemptions pending. They are as follows:

1. Finance Docket No. 30891, Paducah & Louisville Railway, Inc.--Acquisition and Operation Exemption--Illinois Central Gulf Railroad Company.

2. Finance Docket No. 30911, Chicago, Missouri & Western Railway Company--Exemption Acquisition and Operation Exemption--Illinois Central Gulf Railroad Company.

3. Finance Docket No. 31093, Valley Forge Railways, Ltd.--Acquisition and Operation Exemption--Consolidated Rail Corporation.

4. Finance Docket No. 31116, Buffalo & Pittsburgh Railroad, Inc.--Exemption Acquisition and Operation of Rail Line--CSX Transportation, Inc., and Buffalo and Pittsburgh Railway Company (embraces F.D. No. 31117, Genesee & Wyoming Industries, Inc., et al.--Continuance in Control Exemption).

5. Finance Docket No. 31121, P&LE Railco, Inc.--Acquisition & Operation Exemption--The Pittsburgh and Lake Erie Railroad Company and The Youngstown and Southern Railway Company (embraces F.D. 31122, Chicago West Pullman

Corp.--Continuance in Control Exemption--P&LE Railco., Inc., et al.).

6. Finance Docket No. 31187, SouthEastern Rail Corp.--Acquisition & Operation Exemption--Gulf & Mississippi Railroad Corp. (embraces F.D. No. 31186, MidSouth Corp.--Continuance in Control Exemption--SouthEastern Rail Corp.).

Applications pending approval:

1. Finance Docket No. 31388, R.J. Corman Railroad Company/Memphis Line--Purchase and Lease--CSX Transportation, Inc. Line Between Warwick and Uhrichsville, Ohio.

2. Finance Docket No. 31393, Brandywine Valley Railroad Company--Purchase--CSX Transportation, Inc., Lines in Florida.

3. Finance Docket No. 31445, Indiana Hi-Rail Corporation--Purchase--CSX Transportation--Acquisition Between Richmond, IN, and Fernald, OH.

Application on appeal:

Finance Docket No. 31088, Southern Railway Company and Norfolk Southern Corporation--Purchase--Illinois CentralGulf Railroad Company Line between Fulton, KY and Haleyville, AL.

Petitions for Exemptions from section 11343 pending:

1. Finance Docket No. 31422, Cagy Industries, Inc.--Control Exemption--Chattooga & Chickamauga Railway Co., filed concurrently with Finance Docket No. 31421, Chattooga & Chickamauga Railway Co.--Acquisition and Operation of Trackage Rights Exemption--Columbus & Greenville Railway (not printed), served March 17, 1989.

2. Finance Docket No. 31444, Austin & Northwestern Railroad Company, Inc.--Acquisition and Operation Exemption--Missouri Pacific Railroad Company.

3. Finance Docket No. 31447, Burlington Northern Railroad Company--Purchase--Missouri Pacific Railroad Company Sparta Branch near Centralia, in Marion and Clinton Counties, IL.

SENATOR LAUTENBERG: What is the Commission's position on balancing the labor considerations imposed by the Railway Labor Act versus the deregulation thrust of the Staggers Act?

ANSWER: The Commission does not balance these two statutes. It has no authority under the Railway Labor Act, and the Staggers Act did not modify the Commission's labor obligations under the Interstate Commerce Act (ICA).

The Congress established provisions for the protection of labor in the ICA. They preempt the Railway Labor Act. The Commission's New York Dock labor protective conditions, established pursuant to the ICA, give employees adversely affected by merger or sale transactions

up to 6 years' employment protection. Employees affected by the abandonment of rail service receive similar protections.

The Commission does have discretion under the ICA as to whether to impose labor protective conditions on the sale of rail lines to new corporations entering the railroad business under section 10901. In order to encourage this healthy trend in the rail industry, preserve service, and preserve jobs, the Commission has adopted a policy of imposing labor protective conditions in such cases only in exceptional circumstances; see Finance Docket No. 31205, FRVR Corporation - Exemption Acquisition and Operations - Certain Lines of Chicago and North Western Transportation Company - Petition for Clarification (not printed), served January 29, 1988 (FRVR).

The Commission in FRVR said it would

> consider as exceptional, situations in which there was misuse of the Commission's rules of precedent, or where existing contracts specified that line sales were subject to procedural or substantive protection. Further, the exemption will be modified where labor can demonstrate injury that was unique, disproportionate to the gains achieved for the local transport system, and which can be compensated without causing termination of the transaction or substantially undoing the prospective benefits of the Commission's existing policy for other communities and locales. (Citations deleted.)

Thus, the Commission balances the interests of labor, management, and the public interest as a whole in exercising its discretion regarding labor protection under section 10901, but it does so within the parameters of the ICA. The Commission does not balance that statute against the Railway Labor Act. A challenge to the preemption of the Railway Labor Act by the ICA in section 10901 transactions is currently pending before the U.S. Supreme Court in Pittsburgh and Lake Erie Railroad Company v. Railway Labor Executives' Association, Supreme Court Nos. 87-1589 and 87-1888.

COMMISSIONER LAMBOLEY, commenting: In my view, the Commission's approach to line sale transactions under 49 §10901 involving light density shortline and regional railroads has not reflected the necessary accommodation of transportation and labor laws. Since its inception the class exemption announced in Ex Parte No. 392 (Sub-No. 1), Class Exemption for the Acquisition and Operation of Rail Lines Under 49 U.S.C. §10901, 1 I.C.C.2d 810 (1985), has generated transactions fraught with labor tensions stemming, in the main, from the Commission's positions on two issues: (1) implementation of "discretionary" labor protection policies therein established, i.e., the routine denial of employee protection responsibility on part of either buyer or seller, notwithstanding their differing transactional benefits and burdens, and (2) statutory preemption claims, i.e., the assertion that transactions approved under the Interstate Commerce Act (ICA) must of necessity supercede any Railway Labor Act (RLA) provisions and obligations.

Done in the name of the laudable policy to encourage line sale transactions to preserve and maintain continued rail transportation, the class exemption procedures have achieved results inconsistent with and contrary to its stated purposes. Ex Parte No. 392 (Sub-No. 1) has discouraged sound labor relations and collective bargaining by permitting sellers to avoid the negotiating obligation of the RLA upon

invoking sale transactions under the ICA. After a spate of line sale transactions, some of which were little more than thinly disguised labor relation cases, the Commission's implementation of policies underlying Ex Parte No. 392 (Sub-No. 1) has effectively brought transactions to a "grinding" halt, the consequence of judicial action and review at various levels and in various courts, involving both ICA and RLA considerations (as well as the Norris LaGuardia Act). Indeed, it is for this reason that many "recent" transactions avoid the problems associated with the "10901 exemption" by invoking transfers by sale or lease under §11343 or feeder line acquisition under §10910.

In sum, the §10901 "discretionary" policy of the Commission not to impose employee protective conditions on either buyer or seller, except in "exceptional or extraordinary circumstances", has never been exercised in favor of doing so in any case decided by the Commission since issuance of Ex Parte No. 392 (Sub-No. 1). The "weighing and balancing" of respective interests of prior precedent has now been discarded. Cf. Knox & Kane Railroad Co. - Gettysburg R. Co. - Petition for Exemption Under 49 U.S.C. 10505 from 49 U.S.C. 10901, 11343, and 11301, 366 I.C.C. 439 (1982). The evolution from automatic imposition has now given way to automatic denial of conditions.

In my view, matters requiring analysis of the relative benefit, burdens and consequences have been dealt with in summary fashion, by consistent denial, with various explanations attempted upon judicial remand to the Commission. The results, however, have been uniform, no conditions of any kind have been imposed on any party in any case involved in an exempt transaction under §10901. No distinction or allocation of responsibility is made between the status of seller and buyer relative to the assessment of the impact of the sale transaction on the seller's employees and its statutory and/or contractual relations under the RLA.

Appropriate accommodation of transportation and labor laws can be achieved as it has for the past 50 years, without asserting claims of preemption. The statutory policies and purposes of the ICA and RLA can be reconciled, construed and implemented harmoniously consistent with public interests involved in §10901 transactions, as has been done in other transportation transactions. I believe conditions can and should be fashioned that contain both procedural and substantive provisions appropriate to the circumstances. This analytical effort, the majority has routinely declined to undertake.

The exemption cases now exceed 165 in number and include some 29 protested or contested cases. In every one of the contested cases, as well as the uncontested, no attempt to craft labor conditions has been made. A majority of the Commission simplistically views the choice of conditions as being either NY Dock or none, and chooses the latter. The contested cases are listed in Appendix A which follows. In each case I have dissented in part on disposition of labor related issues.

Finally, I for one, doubt that the pending Supreme Court disposition in the Pittsburgh and Lake Erie R. R.Co. v. RLEA, 677 F.Supp. 830 (W.D. Pa. 1987), aff'd, 845 F.2d, 420 (3d Cir.) cert granted, __U.S.__ 109 S. Ct. 489 (1988), (P&LE) cases will provide a definitive resolution of issues, many of which are best left to the market place and affected parties to resolve. To the extent the Commission policies have removed significant market incentives for resolution, the Supreme Court decision may prove instructional on the narrow grounds and circumstances before it.

APPENDIX A

See decisions, and separate expressions in:

Ex Parte No. 392 (Sub-No. 1), Class Exemption for The Acquisition and Operation of Rail Lines Under 49 U.S.C. 10901, 1 I.C.C.2d 810 (1985), aff'd sub nom Illinois Commerce Commission v. I.C.C., 817 F.2d 145 (D.C. Cir. 1987).

Finance Docket No. 30628, Lackawanna County Railroad Authority, Inc. - Exemption From Regulation, (not printed) served February 11, 1986.

Finance Docket No. 30764, Arkansas and Missouri Railroad, Et Al. - Exemption From 49 U.S.C. 10901, 11301, 11322 and 11343, (not printed) served July 17, 1986 and February 9, 1987.

Finance Docket No. 30779, Rochester and Southern Railroad, Inc., and Genesee and Wyoming Industries, Inc. - Exemption From 49 U.S.C. 10901, 11301, and 11343, (not printed) served July 18, 1986.

Finance Docket No. 30754, Huron and Eastern Railway Company - Exemptions, (not printed) served September 12, 1986.

Finance Docket No. 30789, Indiana Rail Road Company - Exemption - Acquisition and Operation, (not printed) served October 10, 1986 and April 16, 1987.

Finance Docket No. 30861(A), City of Austin, TX - Acquisition - Southern Pacific Transportation Company, (not printed) served November 4, 1986.

Ex Parte No. 395 (Sub-No. 1), Keokuk Northern Real Estate Company and Keokuk Junction Railway Company - Election of Exemption, (not printed) served November 28, 1986 and May 5, 1987.

Finance Docket No. 30911, Chicago, Missouri & Western Railway Company - Exemption Acquisition and Operation - Illinois Central Gulf Railroad Company, (not printed) served December 5, 1986 and May 12, 1987.

Finance Docket No. 30891, Paducah & Louisville Railway, Inc. - Acquisition and Operation Exemption - Illinois Central Gulf Railroad Company, (not printed) served May 11, 1987.

Finance Docket No. 31059, Central Michigan Railway Company - Acquisition and Operation - Certain Lines of Grand Truck Western Railroad Company, (not printed) served September 4, 1987 and December 10, 1987.

Finance Docket No. 30915, Otter Tail Valley R. Co. - Acq. & Optn. Exemption - Burlington Northern R. Co. (not printed), served July 2, 1987 and January 22, 1988.

Finance Docket No. 31121, P&LE Railco, Inc.-Exemption Acquisition and Operation Lines of the Pittsburgh and Lake Erie Railroad Company and the Youngstown and Southern Railway Company; Finance Docket No. 31122, Chicago West Pullman Corporation-Continuance in Control Exemption-P&LE Railco, Inc., and - Control Exemption - The Pittsburgh, Chartiers and

Youghiogheny Railway Company; Finance Docket No. 31126, Railway Labor Executives' Association v. Pittsburgh & Lake Erie Railroad Co., et al., (not printed) served September 29, 1987 and October 19, 1987.

Finance Docket No. 31102, Wisconsin Central - Ltd - Exemption Acquisition and Operation-Certain Lines of Soo Line Railroad Co., (not printed) served October 8, 1987 and July 28, 1988.

Finance Docket No. 30918, KNRECO, Inc., d/b/a Keokuk Jnctn. Ry. - Acq. & Optn Exemption - ATSF (not printed), served October 29, 1987 and April 28, 1988.

Finance Docket No. 31113, TP&W Acquisition Corp. - Exemption Acq. & Optn - Certain Lines of ATSF (not printed), served November 9, 1987 and January 4, 1988.

Finance Docket No. 31038, Chicago, Missouri & Western - Trackage Rights - Chicago - South Shore & So. Bend R. Co. (not printed), served December 3, 1987.

Finance Docket No. 31163, Winona Bridge Ry. Co. - Trackage Rts - Burlington Northern R. Co. (not printed), served January 7, 1988.

Finance Docket No. 30555, Northwestern Pac. Acquiring Corp. & Eureka Southern Ry. Co. - Exemption From 49 U.S.C. 10901 and 11301 (not printed), served January 8, 1988.

Finance Docket No. 31082, Kiamichi R. Co., Inc. - Exemption Acq. & Optn - Certain Lines of Burlington Northern, Inc. (not printed), served January 7, 1988.

Finance Docket No. 31205, FRVR Corp. - Exemption Acq. & Optn - Certain Lines of CNW - Petn. for Clarification (not printed), served January 29, 1988 and February 28, 1989.

Finance Docket No. 31094, Grainbelt Corp. - Acq. & Optn. Exemption - Burlington Northern R. Co. (not printed), served February 2, 1988.

Finance Docket No. 30965, Delaware & Hudson Ry. Co. - Lease & Trackage Rights Exemption - Springfield Terminal Ry. Co. (not Printed), served February 19, 1988.

Finance Docket No. 31089, Montana Rail Link, Inc., - Exemption Acq. & Optn - Certain Lines of Burlington Northern R. Co. (not printed), served May 26, 1988 and December 14, 1988.

Finance Docket No. 31116, Buffalo & Pittsburgh Railroad, Inc.--Exemption--Acquisition and Operation of Lines in New York and Pennsylvania, served October 19, 1987.

Finance Docket No. 31187, Southeastern Rail Corporation -- Acquisition and Operation Exemption -- Gulf and Mississippi Railroad Corporation, served March 7, 1988.

Finance Docket No. 31346, Rail Holdings, Inc.--Acquisition and Operation Exemption--Paducah & Louisville Railway, Inc. Finance Docket No. 31346 (Sub-No. 1), Paducah & Louisville Railway Partnership--

Acquisition and Operation Exemption--Rail Holdings, Inc., (not printed) served November 18, 1988.

Finance Docket No. 30640, Rarus Railway Corporation - Exemption From 49 U.S.C. 10901 and 11301, Decision I, (not printed), served April 26, 1985; Decision II, (not printed), served April 24, 1986; Decision III, (not printed), served February 13, 1987; Railway Labor Executives' Ass'n v. I.C.C. 825 F.2d 938 (9th Cir. 1987), and Decision IV, (not printed), served May 9, 1989.

Finance Docket No. 30457, San Diego & Imperial Valley R. Co. - Exemption, (not printed), served July 27, 1988.

REPROGRAMMING

SENATOR LAUTENBERG: Provide the fiscal year 1988 appropriated levels (dollars and staffing), the level after reprogramming, and the actuals for that year.

ANSWER: The following table details the appropriated funds and staff-year levels, revised distribution after reprogramming, and actual expenditures for Fiscal Year 1988.

FY 1988

BUREAU/OFFICE	APPROPRIATED ($000)	APPROPRIATED STAFF	LEVEL AFTER REPROGRAMMING ($000)	LEVEL AFTER REPROGRAMMING STAFF	ACTUAL ($000)	ACTUAL STAFF
Commissioners and their Offices	$3,279	46	$3,343	47 *	$3,272	41
Secretary	3,456	87	3,311	87	3,394	82
General Counsel	1,862	27	1,951	27	1,986	25
Proceedings	7,603	120	7,641	120	7,447	113
Hearings	374	5	387	5	385	5
Public Assistance	1,013	15	1,089	15	1,053	14
Transportation Analysis	2,208	28	2,257	28	2,154	27
Accounts	4,262	65	4,392	64 *	4,531	64
Traffic	3,149	70	3,253	70	3,110	64
Compliance and Consumer Assistance	12,816	210	12,188	210	12,227	203
Managing Director	4,272	77	4,482	77	4,290	74
	$44,294	750	$44,294	750	$43,849	712

* Reflects transfer from Bureau of Accounts to create Office of Internal Audit.

SENATOR LAUTENBERG: For fiscal year 1989 provide the appropriated levels versus the levels after reprogramming.

ANSWER: The following table details the appropriated funds and staff-year levels and revised distribution after reprogramming for Fiscal Year 1989.

FY 1989

BUREAU/OFFICE	APPROPRIATED ($000)	APPROPRIATED STAFF	LEVEL AFTER REPROGRAMMING * ($000)	LEVEL AFTER REPROGRAMMING * STAFF
Commissioners and their Offices	$3,300	46	$3,497	46
Secretary	3,200	83	3,355	82
General Counsel	1,965	27	1,828	25
Proceedings	7,600	120	7,355	115
Hearings	390	5	387	5
Public Assistance	1,100	15	1,062	14

Transportation Analysis	2,255	28	2,247	27
Accounts	4,340	64	4,380	61
Traffic	2,890	60	2,884	59
Compliance and Consumer Assistance	11,660	200	11,896	200
Managing Director	4,415	76	4,224	74
TOTAL	$43,115	724	$43,115	708

* Reprogramming of funds was due to the effects of the 4.1 percent general schedule pay raise effective January 1, 1989. Congressional approval for the reprogramming of funds was requested for the Commissioners and their Offices, and Consumer Assistance; all other funds reprogramming actions were within the five-percent flexibility permitted by the House and Senate Reports on H.R. 4794, referenced by P.L. 100-457. Congressional approval for the reprogramming reduction of 16 staff-years associated with the congressionally mandated program absorption of FY 1989 pay raises was requested for the following offices: Secretary, General Counsel, Proceedings, Public Assistance, Transportation Analysis, Traffic, and Managing Director.

GEORGETOWN - SILVER SPRING

SENATOR LAUTENBERG: What is the status of the Georgetown to Silver Spring freight line abandoned in early April by CSX Corp.?

ANSWER: The Commission took final action in this case in a decision served December 14, 1988, in Docket No. AB-19 (Sub-No. 112), The Baltimore And Ohio Railroad Company, Metropolitan Southern Railroad Company and Washington And Western Maryland Railway Company - Abandonment And Discontinuance Of Service - In Montgomery County, MD, and The District of Columbia. That decision: (1) permitted Laurel Sand & Gravel, Inc., to withdraw its financial assistance offer for the entire line; (2) incorporated a certificate of abandonment for the District of Columbia portion; and (3) provided for either an appropriate certificate of abandonment or certificate of interim trail use for the Maryland portion of the line to be issued depending on whether a trail use agreement had been reached.

On January 23, 1989, CSX advised the Commission that: (1) on December 16, 1988, the Maryland portion of the line (between Valuation Station 12+00 at or near Georgetown Junction and Valuation Station 352+71.2 at or near the District of Columbia-Maryland boundary line) was transferred to Montgomery County, Maryland pursuant to a certificate of interim trail use; and (2) on December 25, 1988, the District of Columbia portion of the line was abandoned pursuant to a certificate of abandonment.

OFFICE OF COMPLIANCE AND CONSUMER ASSISTANCE (OCCA)

SENATOR LAUTENBERG: Please update the following information. How many field offices does the Commission have?

ANSWER: The Commission has 3 regional offices and 19 field offices.

SENATOR LAUTENBERG: Where are they and how many personnel are assigned to each?

ANSWER: Information on the locations of the Commission's regional and field offices and the approximate number of staff-years projected at each office for FY 1989 follows.

Eastern Region		Staff-Years
Philadelphia, PA	(Regional Office)	29
Boston, MA		11
New York, NY		6
Cleveland, OH		5
Baltimore, MD		4
Charlotte, NC		2
Atlanta, GA		14
Jacksonville, FL		3
Central Region		
Chicago, IL	(Regional Office)	30
Minneapolis, MN		2
Indianapolis, IN		2
Omaha, NE		1
Kansas City, MO		2
St. Louis, MO		3
Ft. Worth, TX		11
New Orleans, LA		1
Western Region		
San Francisco, CA	(Regional Office)	15
Los Angeles, CA		8
Phoenix, AZ		1
Denver, CO		5
Salt Lake City, UT		1
Seattle, WA		4

SENATOR LAUTENBERG: Are all of the field staff listed assigned to OCCA? If not, which ones are assigned to other offices?

ANSWER: OCCA is the only Commission office with both a headquarters and a field staff. Staff members of all other bureaus and offices are stationed at the Commission's Washington, DC headquarters.

OVERALL BUDGET REQUEST

SENATOR LAUTENBERG: OMB increased the Commission's request for fiscal year 1990 funds from $44,351,000 to $44,689,000. Why?

ANSWER: Since the amount of the January 1989 General Schedule pay raise was uncertain at the time of the Commission's FY 1990 OMB budget submission, it was not included in the Commission's request. OMB increased the Commission's request from $44,351,000 to $45,704,000, to reflect the full cost of the pay raise. OMB subsequently reduced the Commission's request to the allowance level of $44,689,000, reflecting the Administration's policy on pay absorption and the reduced staff-year allowance level.

SENATOR LAUTENBERG: The OMB also decreased the staff years from a Commission recommended level of 712 to 701. What will happen as a result, if Congress enacts the President's requested level?

ANSWER: A majority of the Commission voted to accept the OMB reduction since the reduced staff-year levels by Bureau and Office were acceptable to the Office Directors and closely reflected on-board employment. The majority vote anticipated that the Commission's

FY 1990 projected workload could be timely and adequately accomplished with the resources provided in the FY 1990 Congressional budget request.

SEPARATE EXPRESSION OF VICE CHAIRMAN SIMMONS: The OMB imposed budget request does not reflect the staffing resources proposed by Bureau and Office Directors at the Commission's July 1988 budget conference. Support for lower staffing levels now raises obvious questions concerning the inconsistency with prior positions. Given the magnitude of Commission staff reductions since 1980, I believe it should be clear that the Commission cannot meet its statutory responsibilities with continuing decreases in staffing levels.

COMMISSIONER LAMBOLEY, commenting: My views on the OMB passback for this budget year are reflected in my general comments on the 1990 budget.

SENATOR LAUTENBERG: How do obligations compare to appropriated levels for the past three years?

ANSWER: The comparisons for fiscal years 1986, 1987 and 1988 are as follows:

	Fiscal Year		
	1986	1987	1988
Appropriation ($000)	48,408*	46,855*	44,294
Obligations ($000	45,712	42,835	43,849

* Includes transfers to ICC Salaries and Expenses from Payments for Directed Rail Service:
FY 1986 - $2,300,000
FY 1987 - $ 53,000

TRUCKING REGULATORY FUNCTIONS

SENATOR LAUTENBERG: Provide the Committee the ICC staff-years for trucking regulatory functions under the Commission's fiscal year 1990 budget request. (Comparable to the table on page 823 of the Senate Hearings.)

ANSWER: The following table provides the staff-years associated with each of the trucking regulatory functions.

INTERSTATE COMMERCE COMMISSION
TRUCKING REGULATORY FUNCTIONS
STAFF-YEARS BY REGULATORY FUNCTION

	Fiscal Year 1990		
REGULATORY FUNCTIONS	Directly Assigned Staff years	General Management Staff years	Total Staff years
RATE REGULATION	73	10	83
ENTRY REGULATION	95	12	107
FINANCE REGULATION	7	1	8
Ancillary Functions			
Safety	10	1	11
Insurance	61	8	69
Anti-Trust Enforcement	6	1	7
Cargo Damage Liability	16	2	18
Data Reporting	3	0	3
Owner-Operator Protection	30	4	34
BMC-Consumer Protection	18	2	20
Mexican Carrier Registration	1	0	1
TOTAL	320	42	362

SENATOR LAUTENBERG: Has the Department of Transportation (DOT) yet issued the necessary implementing rules for safety fitness determinations?

ANSWER: DOT issued its final rules on December 18, 1988.

SEPARATE EXPRESSION OF VICE CHAIRMAN SIMMONS: The 1984 legislation which mandated the DOT safety fitness determinations also required DOT to adopt implementing regulations within 12 months. DOT took more than four years to adopt the regulations. Under these circumstances, it is difficult to understand the support of some persons for proposals to transfer ICC motor carrier functions to DOT. Critical activities now being performed efficiently at the ICC, such as monitoring the insurance coverage of regulated motor carriers, should not be transferred to an agency with DOT's record of delay and inaction.

SENATOR LAUTENBERG: The Commission presently conducts safety fitness reviews. Briefly describe the process. How many are conducted each year? How do these relate to, or how are they coordinated with, FHWA's motor carrier programs?

ANSWER: The Commission takes safety fitness into account when it handles every licensing and finance application. This process typically uses the carrier's DOT safety rating. If the carrier's rating is less than satisfactory, applications may be rejected or licenses may be issued for limited terms depending on the rating and the type of service provided. The Commission does not normally conduct independent safety fitness reviews. That task belongs to DOT. However, the Commission does conduct a limited number of investigations and institutes proceedings looking toward suspending or revoking a carrier's authority when a carrier has a history of repeated safety problems. DOT data are used in this procedure, as is other fitness information we develop independently.

SEPARATE EXPRESSION OF VICE CHAIRMAN SIMMONS: I disagree with the assertion that independent safety fitness reviews are an activity that belongs almost exclusively to DOT. In its licensing procedures, the Commission often relies on out-of-date DOT safety audits or unconfirmed claims by individual carriers of improvements in safety procedures. I believe the Commission should use our Office of Compliance and Consumer Assistance to independently verify a carrier's safety status when necessary to assure protection of the public. Currently this office is only allowed to become involved in very rare cases of the most egregious behavior. I favor employing Commission resources to the fullest extent possible in the area of safety fitness.

SENATOR LAUTENBERG: The owner-operator protection function recovered less than $300 per complaint filed by owner-operators in 1985 and 1986. Please update this for fiscal years 1988 and 1989.

ANSWER: There were approximately 1,100 complaints received in FY 1988 from owner-operators against motor carriers and 800 in FY 1989. The Commission's staff assisted owner-operators in recovering from motor carriers approximately $455,100 in FY 1988 and $325,000 in FY 1989. The staff-years allocated to the owner-operator function are more diversified than the handling of complaints, which accounts for only a small portion of the staff used. Additionally, complaints from owner-operators involve matters other than the recovery of money, and not all complaints involving money disputes are resolved in favor of the owner-operators. Nevertheless, while the amount of money recovered for owner-operators on an individual

complaint basis is occasionally small, the aggregate losses prevented through curtailment on the disallowed practice are significant. For these reasons, it would be inaccurate to conclude that there is an average recovery of $300 per complaint based on dividing the total amount recovered for owner-operators by the total number of owner-operator complaints.

COMMISSIONERS AND THEIR OFFICES

SENATOR LAUTENBERG: What are the costs associated with the personnel requests for the Chairman, the Commissioners, and the satellite offices?

ANSWER: The Fiscal Year 1990 personnel compensation and benefits costs for the Chairman's Office, the four Commissioners and their staffs, and the three satellite offices are displayed in the following table:

FY 1990 PERSONNEL COSTS
COMMISSIONERS AND THEIR OFFICES

Chairman	$ 545,000
Commissioners	1,863,000
Satellite Offices	1,089,000
Total	$ 3,497,000

PROCEEDINGS

SENATOR LAUTENBERG: How many court referrals were made to the Commission regarding the availability of equitable relief for undercharges? What actions were taken?

ANSWER: Approximately 100 cases have been referred to the Commission. Of this number, approximately three quarters are now closed. The Commission issued a decision in favor of the shipper in every case decided on the merits.

RULEMAKINGS

SENATOR LAUTENBERG: What rulemakings are now before the Commission?

ANSWER: As of May 15, 1989, the following rulemakings had been instituted and are pending, or requests for rulemaking have been filed and docketed (but not yet instituted) in the following cases:

Ex Parte No. MC-1	Payments of Rates and Charges of Motor Carriers
Ex Parte No. MC-19 (Sub-No. 40)	Return of Proportional Freight Charges by Motor Carriers of Household Goods
Ex Parte No. MC-37 (Sub-No. 40)	Commercial Zones and Terminal Areas (Proposal to Explore Expansion of Commercial Zones and Terminal Areas)
Ex Parte No. 55 (Sub-No. 52)	Special Procedures Governing the Recovery of Expenses by Parties to Commission Adjudicatory Proceedings

Ex Parte No. 55 (Sub-No. 67)	Interpretations and Routing Regulations
Ex Parte No. 55 (Sub-No. 69)	Rules Governing Applications For Operating Authority--Revision of Form OP-1
Ex Parte No. 55 (Sub-No. 70)	Practitioners
Ex Parte No. MC-177	National Industrial Transportation League--Petition to Institute Rulemaking on Negotiated Motor Carrier Rates
Ex Parte No. MC-179	Purchase, Merger, and Control of Motor Passenger and Water Carriers
Ex Parte No. MC-190	Elimination of Accounting and Reporting Requirements for Private Carriers
Ex Parte No. 230 (Sub-No. 7)	Improvement of TOFC/COFC Regulations (Pickup & Delivery)
Ex Parte No. 246 (Sub-No. 7)	Regulations Governing Fees and Services Performed in Connection with Licensing and Related Services--1989 Update
Ex Parte No. 274 (Sub-No. 13)	Rail Abandonments--Use of Rights-of-Way as Trails - Supplemental Trails Act Procedures
Ex Parte No. 274 (Sub-No. 18)	Rail Abandonments - Consideration of Possible Sale or Subsidy
Ex Parte No. 274 (Sub-No. 19)	Increasing the OFA Purchase Price to Compensate for Tax Liability Incurred on the Sale of Personal Property
Ex Parte No. 274 (Sub-No. 20)	Rail Abandonments - Avoidability of Property Tax Expense Under the Unit Method of Assessment
Ex Parte No. 290 (Sub-No. 2)	Railroad Cost Recovery Procedures (Release of Underlying Workpapers)
Ex Parte No. 290 (Sub-No. 2)	Railroad Cost Recovery Procedures (Petition to Modify Fuel Component)
Ex Parte No. 290 (Sub-No. 2)	Railroad Cost Recovery Procedures (Modification of Materials & Supplies Component)
Ex Parte No. 290 (Sub-No. 4)	Railroad Cost Recovery Procedures - Productivity Adjustment
Ex Parte No. 290 (Sub-No. 6)	Railroad Cost Recovery Tariff
Ex Parte No. 290 (Sub-No. 7)	Productivity Adjustment--Implementation

Ex Parte No. 334 (Sub-No. 6)	Review of Car Hire Regulation
Ex Parte No. 346 (Sub-No. 23)	Railroad Exemptions - Filing Quotations Under Section 10721
Ex Parte No. 346 (Sub-No. 24)	Rail General Exemption Authority - Miscellaneous Manufactured Commodities
Ex Parte No. 347 (Sub-No. 1)	Coal Rate Guidelines--Nationwide
Ex Parte No. 347 (Sub-No. 2)	Rate Guidelines--Non-Coal Proceedings
Ex Parte No. 392 (Sub-No. 2)	Class Exemption--Construction of Connecting Tracks
Ex Parte No. 392 (Sub-No. 3)	Class Exemption for Rail Construction
Ex Parte No. 394 (Sub-No. 3)	Cost Ratio for Recyclables - Compliance Procedures
Ex Parte No. 431 (Sub-No. 1)	Adoption of the Uniform Railroad Costing System
Ex Parte No. 444	Electronic Filing of Tariffs
Ex Parte No. 445 (Sub-No. 2)	Intramodal Rail Competition - Proportional Rates
Ex Parte No. 462	Exemption of Demurrage from Regulation
Ex Parte No. 468	Review of Railroad Depreciation Studies by Independent Accountants
Ex Parte No. 477	Modifications to General Purpose Costing System

SENATOR LAUTENBERG: What is the timetable for their disposition?

ANSWER: All rulemakings now before the Commission are under consideration at various stages. Recordbuilding is proceeding in some. In others, the record is under study, draft decisions are being worked on, or are before the Commission for vote. Many of the rulemakings pending now (as opposed to prior years) are as a result of Commission initiatives. That is, they were instituted on our own motion, rather than at someone's request. Many of these proposals for rule changes reflect Commission efforts to update existing rules to reflect evolving policy. Others propose elimination or simplification of rules that have not been revisited for many years.

SENATOR LAUTENBERG: What rulemakings does the Commission expect to initiate (and why) the rest of fiscal year 1989 and in fiscal year 1990?

ANSWER: The Commission will consider initiation of a number of rulemakings during the remainder of fiscal year 1989 and in fiscal

year 1990. We have an ongoing project to update and clarify the portions of the Code of Federal Regulations applicable to the Commission's exercise of jurisdiction over rail, motor, and water carriers. The intent of this updating is to make existing rules simpler for the public to understand and to eliminate unnecessary regulation. For example, we are studying existing rules related to motor finance transactions, section 10901 applications, section 10910 filings, abandonment applications, and codification of petition for exemption procedures.

Other rulemakings may be initiated, as always, at the request of an interested party.

MANAGING DIRECTOR

SENATOR LAUTENBERG: Provide the names of those receiving incentive awards for fiscal year 1986, 1987, and 1988, and the amounts received.

ANSWER: The following table lists the names of those receiving incentive awards and amounts of the awards for Fiscal Years 1986, 1987, and 1988. Incentive awards are for contributions by an individual or group in the form of suggestions, inventions, or special acts or services in the public interest connected with or related to official employment, which contributes to efficiency, economy or other improvement of Government operations, or achieves a significant reduction in paperwork (5 CFR 451.103). This does not include awards granted on the basis of annual performance ratings under the Performance Management and Recognition System, the minimum payment of which is mandated by law (5 U.S.C. Chapter 54). Similar awards under the Performance Management System are also not included, nor are SES bonuses.

Incentive Awards
FY 1988

Name of Employee	$ Amount of Award
Garnet Sue Adams	750
Beverly Davis	500
Robert Swedien	300
Charles Staggs	750
Sandra Burke	350
Rosa Beamon	200
Velma Swales	200
Lois Thompson	350
Shirley Scales	350
Marion Oliver	350
Naomi Norris	350
Shirley Lloyd	350
Joyce Lannon	350
Robert Coward	350
Myrtle Lane	600
Ellen Keys	250
John Callaghan	250
Jerome Hunter	500
Joseph Hamlin	500
Zachary Santarmes	500
Michael Redisch	2,800

Incentive Awards
FY 1987

Name of Employee	$ Amount of Award
Maria Foti	1,000
Melvin Malloy	500
Hazel Lowe	600
Rebecca Powell	400
Lorelei Ransome	500
Lucy Aloi	500
Hildred Smith	500
Linda Corsnitz	500
Elaine Burkhardt	1,000
Mavis Wiggert	1,000
Lee Gardner	3,000
John Hennigan, Jr.	2,800
Mamie Dennis	750
Mary Sylvester	750
Sheila Minor	750
Delores Coleman	250
Noreta McCee	2,500
Ernestine Hedgepeth	750
Judith Holyfield	750
Easter Yahya	750
John Hedetniemi	750
Tondalayo Matelski	750
Ann E. Newman	750
Betty Grant	750
Stephen Grimm	500
Harry Halm	500
Emily White	500
David Groves	1,200
William England	500
James Wells	500
Kathleen Barron	600
Richard Washington	600
Nathaniel Jackson	500
Michael Nafpliotis	500
Margaret Richards	500
Patricia Schulze	500
Roy Wilkins	1,200
Billy Martin	500
Barbara Wolfe	500
Teresa Maldonado	500
Virginia Kendall	500
Gene Cox	500
Judith Bush	500
Laura Sielsch	500
Patrick McSweeney	500
Lenore Cummings	500
Sandra Stowell	500
Sheardener Stepney	500
Joan Richardson	200
Mary Phillips	500
Dorothea Grymes	500
Deloris Degree	500

Incentive Awards
FY 1987

Name of Employee	$ Amount of Award
Sheliah Green	500
Jacqueline Sutton	500
Verna Harris	500
Mary Pollack	833
Johnnie Davis	833
Tawanna Sanders-Glover	833
Floyd Bilbo	1,200
Dwight Sanders	1,100
Thomas Mongelli	500

Incentive Awards
FY 1986

Name of Employee	$ Amount of Award
Laverne Harris	400
Mavis Wiggert	200
Elaine Burkhardt	300
Maria Foti	1,000
Melvin Malloy	500
Rebecca Powell	200
Hazel Lowe	300
Lucy Aloi	300
Lorelei Ransome	200
Edward O'Meara	2,000
Mavis Wiggert	800
Elaine Burkhardt	1,200
Hildred Smith	1,000
Linda Corsnitz	1,000
John Hennigan, Jr.	3,000
Alton Montgomery	500
Thomas Vining	2,000
Margaret Lam	250
Mary Hogya	800
Arnold Smith	500
Edward Welkener	500
Virgil Schultz	400
Donald Hirst	400
Edward Blansitt	500
Eileen Rickard	300
Ray Houser	1,000
Frank Ortiz	1,000
Howard Char	500
Carol Fitzgerald	500
Howard Lee	500
Thomas Ponton	800
Kathy Link	1,000
George Roundtree	750
Brian McNiff	500
Theodore Santarmes	500
Patricia Layton	1,250
Velma Battle	750
Carolyn Word	450

Incentive Awards
FY 1986

Name of Employee	$ Amount of Award
William Mousser	500
Mildred Lee	250
John McMorrow	250
Janice Fort	250
Tura Gatling	250
Barbara Ridout	250
Kenneth Cook	250
Aline Jackson	250
Myrtle Lane	250
William Hall	250
Broderick Robinson	250
Gloria Newson	250
Betty Blount	250
Robert Horner	400
Joanne Rudolph	400
Joan Richardson	500
Stephen Day	1,250
James Nash	500
Kenneth Tyree	1,000
Dana White	750
Carol Brooks	1,000
Shirley Boone	500
Wilbert Chamberlain	925
Claudette Chambers	525
Michelle Fort	475
Tom Kelly	925
Joan Seward	600
Flora Taylor	625
Alma Waltz	625
Josephine Gomillion	400
Linda Charles	250
Alice Durham	250
Robert Abare	3,000
Alan Rothenberg	250
Rudolph Saint-Louis	250
Lawrence London	250
H. Johnson	250
Andy Lee	250
Kathy King	250
David Wuehrmann	250
Lawrence Herzig	250
Nancy Howard	250
Garoy Gonzalez	500
Avis Lomax	250
Maud Jeremiah	250
Betty Uzzle	250
Madeline Echols	300
Maria Salazar	250
Diane Jordan	250
Mary Johnson	250
Ruth Jefferies	250
Beatrice Alexander	250
Pearline Beasley	250
Roberta Boyd	250

Incentive Awards
FY 1986

Name of Employee	$ Amount of Award
Gilbert White	250
Tim Abendroth	500
Rick Osterman	500
Glen Scammel	500
Evelyn Kitay	500
Joan Wise	1,000
John Hedetniemi	300
Wilbur Coleman	300
Ann Newman	300
Diane Guy	250
Charles Renninger	300
Beverly Davis	250
Garnet Sue Adams	250
Betty Grant	250
Helen Belt	300
Sandra Burke	250
Darlene Evans	300
Barbara Regan	200
Christine Coates	300
Darlene Humphries	200
Edna Wren	200
Melinda Collins	250
Paul Snyder	300
Joseph Wells	200
Judith Holyfield	300
Ernestine Hedgepeth	300
Charles Staggs	200
Eunice Anderson	200
Audrey Johnson	200
Naomi Ainsworth	170
Naomi Norris	170
Ella Hamilton	170
Lois Thompson	210
Thomas Curtis	150
William Luker	150
Barbara Saddler	170
Tondalayo Matelski	170
Ruth Johnson	170
Marian Amicon	170
Marie Simpson	210
Nancy Taylor	150
Dorothy Wilson	150
DeAnn Outlaw	170
Patricia Wills	170
Joyce Lannon	210
Carol Russell	150
Phyllis Moffett	150
Shirley Lloyd	170
Merrill Sickles	150
Shirley Reid	210
Frankie McNair	170
Irene Starks	170
Jewell Williams	170
Paul Nishimoto	250

Incentive Awards
FY 1986

Name of Employee	$ Amount of Award
Richard Armstrong	250
Judith Groves	500
Kent Phillips	1,200
Constance Savoy	600
Leonard Blistein	1,200
Thomas Stilling	1,200
Doris Austin	900
William Rogers	1,200
William Bowles	500
C.Gordon Gill	1,200
Robert Hasek	1,200
Harold Warren	1,200
Mary Griffin	500
Lenore Cummings	500
Marga Deminne	400
Donna Getz	400
Joan Flair	400
Barbara Jacobs	400
Mary Francy	400
Cynthia Outley	400
Laura Sieslch	500
Sandra Stowell	500
Sheardener Stepney	500
Barbara Hartwell	500
Glenn Eady	400
Louise Olinski	500
Elaine Heard	500
Lavadure Williams	500
Paul Graham	400
Michele Holm	500
John Dewar	500
Miriam Ford	500
Robert Quillinan	400
Raymond Weddell	400
Peter Farrette	500
Theresa Maldonado	500
Lawrence Hawthorne	600
Shirley McNeice	250
Zachary Santarmes	250
Carole Mobray	250
Byron Martin	250
Aline Jackson	250
Joyce Stephens	500
Myra Smallwood	500
Clarence Jackson	500
Judith Bush	500
Mary McManus	500
Rose Giragosian	500

PANAMA CANAL COMMISSION

STATEMENT OF ROBERT W. PAGE, CHAIRMAN OF THE BOARD

INTRODUCTION

MR. CHAIRMAN, MEMBERS OF THE SUBCOMMITTEE, I AM ROBERT W. PAGE, THE NEW SECRETARY OF DEFENSE REPRESENTATIVE FOR PANAMA CANAL AFFAIRS, AND THE CHAIRMAN OF THE BOARD OF THE PANAMA CANAL COMMISSION. I AM PLEASED TO PRESENT TO YOU OUR FISCAL YEAR 1990 BUDGET PROGRAMS AND ALSO TO REPORT ON THE MORE SIGNIFICANT DEVELOPMENTS AND ACCOMPLISHMENTS PERTAINING TO THE PANAMA CANAL ENTERPRISE. PARTICIPATING WITH ME IN THIS HEARING ARE D. P. McAULIFFE, THE ADMINISTRATOR OF THE COMMISSION, AND MICHAEL RHODE, THE SECRETARY OF THE COMMISSION.

AT THE OUTSET, I WOULD LIKE TO TAKE THIS OPPORTUNITY TO SAY THAT I AM LOOKING FORWARD TO WORKING WITH THE SUBCOMMITTEE AND HOPE TO CONTINUE THE CLOSE WORKING RELATIONSHIP THE PANAMA CANAL COMMISSION HAS HAD WITH THE SUBCOMMITTEE OVER THE YEARS.

OPERATING ENVIRONMENT

THIS COMING SEPTEMBER 30TH, THE PANAMA CANAL COMMISSION WILL HAVE COMPLETED TEN YEARS OF OPERATION UNDER THE TERMS OF THE 1977 TREATY WITH THE REPUBLIC OF PANAMA. DURING THIS TIME THE COMMISSION HAS BEEN FACED WITH MANY DIFFICULT CHALLENGES WHICH FOR THE MOST PART HAVE BEEN A DIRECT RESULT OF THE IMPLEMENTATION OF THE TREATY'S PROVISIONS, WHILE MORE RECENTLY, OTHERS WERE SPAWNED FROM THE POLITICAL CRISIS THAT BEGAN OVER A YEAR AGO AND IS ONGOING TODAY IN PANAMA. THESE EVENTS ARE UNPRECEDENTED AND CONTINUE TO IMPOSE SERIOUS PROBLEMS FOR THE EFFICIENT OPERATION OF THE WATERWAY.

WHEN COMMISSION MANAGEMENT WAS BEFORE THIS SUBCOMMITTEE THIS TIME LAST YEAR, PANAMA WAS UNDERGOING A PERIOD OF SEVERE CIVIL UNREST, INCLUDING STRIKES, DEMONSTRATIONS AND ALMOST DAILY CONFRONTATIONS BETWEEN POLICE AND THE POPULACE. IN ADDITION, A DETERIORATING ECONOMIC SITUATION LED TO THE CLOSURE OF THE ENTIRE PANAMA BANKING SYSTEM FOR A PERIOD OF NINE WEEKS. WHILE THESE EXTREME CONDITIONS NO LONGER PREVAIL, THE SITUATION IS FAR FROM NORMAL AND PROBABLY WILL NOT IMPROVE FURTHER UNTIL THE DIFFERENCES BETWEEN THE UNITED STATES AND THE REPUBLIC OF PANAMA ARE RESOLVED.

ONE OF MY GREATEST CONCERNS AS THE NEW CHAIRMAN OF THE COMMISSION IS PRESERVING THE MORALE AND WELL-BEING OF THE CANAL WORK FORCE -- U.S. AND PANAMANIAN CITIZENS ALIKE. MOST OF THE PROBLEMS BEING FACED BY OUR EMPLOYEES CAN BE TRACED TO THE RESPONSE OF THE NORIEGA-SOLIS REGIME TO THE ECONOMIC SANCTIONS IMPOSED BY THE UNITED STATES. FOR EXAMPLE, MONIES WITHHELD FROM PANAMANIAN EMPLOYEES FOR INCOME AND EDUCATION TAXES HAVE NOT BEEN PAID TO THE LOCAL AUTHORITIES. AS A RESULT, MANY OF OUR PANAMANIAN EMPLOYEES FACE LEGAL ACTIONS BY THE PANAMANIAN GOVERNMENT WHICH HAS LED TO THE CONFISCATION OF AUTOMOBILES, HOMES AND PERSONAL BANK ACCOUNTS, AS WELL AS THE DENIAL OF

VEHICLE LICENSE PLATES AND DOCUMENTS NECESSARY TO TRAVEL OUTSIDE THE COUNTRY AND CONDUCT PERSONAL BUSINESS.

WITH REGARD TO THE U.S. CITIZEN WORK FORCE, THEY ARE RIGHTFULLY CONCERNED ABOUT THE SAFETY OF THEIR FAMILIES AND SECURITY OF THEIR HOMES AND PERSONAL PROPERTY. THIS CONCERN IS DRIVEN BY THE DRAMATIC INCREASE IN BURGLARIES AND AUTO THEFTS IN COMMISSION TOWN SITES, ALONG WITH A NOTABLE LACK OF POLICE RESPONSE. IN ADDITION, BECAUSE OF WIDELY PUBLICIZED CASES OF HARASSMENT AND INTIMIDATION OF COMMISSION EMPLOYEES BY LOCAL AUTHORITIES, THERE IS GENERAL APPREHENSION ABOUT THE FUTURE AND, IN PARTICULAR, WHETHER THERE IS A SOURCE OF PROTECTION THEY CAN CALL UPON.

DESPITE THESE DIFFICULT TIMES, I AM PLEASED TO REPORT THAT OUR EMPLOYEES CONTINUE TO PERFORM THEIR JOBS WELL AND EFFICIENTLY, AND THEY CONTINUE TO PROVIDE EXCELLENT SERVICE TO WORLD SHIPPING.

BOARD ACTIVITIES

OVER THE COURSE OF THE LAST FISCAL YEAR, ALTHOUGH NOT BEING DIRECTLY INVOLVED, I HAVE COME TO UNDERSTAND THAT THE POLITICAL EVENTS THAT HAVE AFFECTED THE COMMISSION HAVE ALSO HAD AN IMPACT UPON THE ACTIVITIES OF THE PANAMA CANAL COMMISSION'S BOARD OF DIRECTORS, AS WITNESSED BY THE FACT THAT THE PANAMANIAN BOARD MEMBERS HAVE NOT ATTENDED A BOARD MEETING FROM JANUARY OF 1988 THROUGH THE MOST RECENT MEETING HELD ON JUNE 1, 1989 A PERIOD OF ALMOST 18 MONTHS. I WOULD LIKE TO NOTE THAT THE PRESENCE OF THE FIVE UNITED STATES MEMBERS OF THE BOARD OF DIRECTORS CONSTITUTES A QUORUM. CONSEQUENTLY, THE ESSENTIAL BUSINESS OF THE PANAMA CANAL COMMISSION HAS BEEN CONDUCTED ON AN UNINTERRUPTED BASIS. I WOULD LIKE TO FURTHER POINT OUT THAT ONE OF THE MATTERS OF BUSINESS CONSIDERED AT THE JANUARY 11, 1989 MEETING WAS THE APPOINTMENT, BY THE BOARD OF DIRECTORS, OF A PANAMANIAN NATIONAL TO THE POSITION OF PERSONNEL DIRECTOR FOR THE COMMISSION. THIS IS AN IMPORTANT POSITION AND AGAIN DEMONSTRATES THE COMMITMENT TO THE OBJECTIVE OF INCREASING PANAMANIAN PARTICIPATION AT ALL LEVELS OF EMPLOYMENT.

SIGNIFICANT TREATY EVENTS

ONE OF THE MORE SIGNIFICANT EVENTS FACING THE COMMISSION THIS COMING YEAR WILL BE THE NAMING OF A PANAMANIAN NATIONAL TO THE POSITION OF ADMINISTRATOR OF THE COMMISSION. YOU WILL RECALL THAT THE TREATY REQUIRES THAT A PANAMANIAN NATIONAL BE APPOINTED TO THE POSITION OF ADMINISTRATOR, AND THAT A UNITED STATES NATIONAL BE APPOINTED TO THE POSITION OF DEPUTY ADMINISTRATOR, EFFECTIVE JANUARY 1, 1990. THE TREATY PROVIDES THAT THE REPUBLIC OF PANAMA IS TO PROPOSE TO THE UNITED STATES THE INDIVIDUAL FOR THE ADMINISTRATOR'S POSITION FOR APPOINTMENT BY THE UNITED STATES. HOWEVER, THE LEGISLATION IMPLEMENTING THE TREATY ALSO REQUIRES THAT THE INDIVIDUAL THUS NOMINATED BE FORMALLY APPOINTED BY THE PRESIDENT OF THE UNITED STATES WITH THE ADVICE AND CONSENT OF THE SENATE. THUS, ON JANUARY 1, 1990 THE FIRST PANAMANIAN CITIZEN IS SCHEDULED TO BE ASSIGNED TO THIS VERY IMPORTANT ROLE IN THE MANAGEMENT AND OPERATION OF THE

PANAMA CANAL. HOWEVER, UNDER THE PRESENT POLITICAL ENVIRONMENT, I DO FORESEE SOME DIFFICULTY IN THIS CHANGEOVER OCCURRING AS REQUIRED BY THE TREATY. THE APPOINTMENT OF A U.S. DEPUTY ADMINISTRATOR WILL BE AN IMPORTANT EVENT, AND WE ARE PROCEEDING WITH THE NOMINATION PROCESS.

REGARDLESS OF THE CHALLENGES AHEAD, I WISH TO REITERATE MY PERSONAL RESOLVE TO CONTINUE OPERATING THE PANAMA CANAL IN THE MOST EFFICIENT MANNER POSSIBLE.

ANTICIPATED TOLL RATE INCREASE

IN THE COMMISSION'S REPORT TO THE SUBCOMMITTEE LAST YEAR, IT WAS FORECASTED THAT A TOLL RATE INCREASE AT THE START OF FISCAL YEAR 1989 WOULD BE REQUIRED. REALIZING THE NEED TO KEEP CANAL COSTS COMPETITIVE, WHILE STILL RECOVERING THE COST OF OPERATIONS, THE COMMISSION MONITORED THE SITUATION VERY CLOSELY AS BETTER INFORMATION BECAME AVAILABLE. IN THE SUBSEQUENT ROUND OF FORECASTING, A SLIGHTLY IMPROVED REVENUE PICTURE WAS PROJECTED WHICH, WHEN COMBINED WITH CERTAIN COST DEFERRALS, WOULD RESULT IN THE COMMISSION ENDING THE YEAR WITH A SMALL LOSS OF APPROXIMATELY $2.5 MILLION. ON THE BASIS OF THESE PROJECTIONS, THE COMMISSION DEFERRED THE TOLL RATE INCREASE THAT WAS ORIGINALLY ANTICIPATED FOR FISCAL YEAR 1989.

LOOKING AHEAD TO FISCAL YEAR 1990, WE ANTICIPATE THAT THE COMMISSION WILL NO LONGER BE ABLE TO CONTINUE TO ABSORB THE EFFECTS OF RISING PRICES IN THE FACE OF MARGINAL TRAFFIC GROWTH. ACCORDINGLY, WE ARE PROJECTING THE IMPLEMENTATION OF A TOLL RATE INCREASE EFFECTIVE OCTOBER 1, 1989. IN CONFORMANCE WITH THE REGULATIONS COVERING TOLL RATE INCREASES, THE PROPOSAL HAS BEEN SUBMITTED TO THE BOARD OF DIRECTORS FOR THEIR CONSIDERATION AND WAS APPROVED ON JUNE 1, 1989. PUBLIC NOTIFICATIONS AND HEARINGS CONCERNING THE TOLL PROPOSAL HAVE BEEN SCHEDULED ON JULY 6, 1989 AS REQUIRED BY THE REGULATIONS. SUBSEQUENT TO THE HEARINGS THE PRESIDENT OF THE UNITED STATES MUST APPROVE THE NEW RATES. AGAIN, REALIZING THE IMPORTANCE OF KEEPING THE CANAL COST COMPETITIVE, EVERY EFFORT HAS BEEN MADE TO KEEP THE RATE INCREASE TO A MINIMUM AND STILL ACHIEVE OUR LEGAL MANDATE OF OPERATING THE CANAL ON A BREAK-EVEN BASIS, AT NO COST TO THE U.S. TAXPAYER. THE COMMISSION WILL KEEP THE COMMITTEE INFORMED OF FURTHER DEVELOPMENTS IN THIS AREA.

BUDGET PROGRAMS

MR. CHAIRMAN, WHILE MR. McAULIFFE WILL ADDRESS IN MORE DETAIL THE BUDGET PROGRAMS THAT ARE PLANNED IN FISCAL YEAR 1990, I WANT TO AFFIRM THAT THE PROGRAMS FOR THAT YEAR ARE ESSENTIAL AND ARE IN ACCORD WITH THE PROGRAM OF THE PRESIDENT.

RECOGNITION OF CANAL EMPLOYEES

AT THIS TIME I WOULD LIKE TO ACKNOWLEDGE THE LOYALTY AND COMMITMENT OF ALL OF THE PANAMA CANAL COMMISSION EMPLOYEES. THIS PAST YEAR OBVIOUSLY HAS BEEN ONE OF EXTREMELY TRYING CIRCUMSTANCES FOR ALL INVOLVED WITH THE PANAMA CANAL ENTERPRISE. DESPITE THE PRESSURES BROUGHT TO BEAR UPON THESE EMPLOYEES, THEIR DEDICATION HAS RESULTED IN A SUCCESSFUL YEAR

OF SAFE AND EFFICIENT SERVICE TO THE INTERNATIONAL SHIPPING COMMUNITY. ALL OF THE EMPLOYEES DESERVE RECOGNITION FOR THEIR EFFORTS IN THIS ENDEAVOR.

CONCLUSION

MR. CHAIRMAN, THIS CONCLUDES MY PREPARED REMARKS. I WOULD LIKE TO REITERATE MY APPRECIATION TO YOU AND THIS COMMITTEE FOR THE OPPORTUNITY TO REVIEW THE COMMISSION'S PROGRAMS FOR THE CURRENT AND BUDGET YEARS.

STATEMENT OF DENNIS P. McAULIFFE, ADMINISTRATOR

INTRODUCTION

MR. CHAIRMAN, MEMBERS OF THE SUBCOMMITTEE, I AM DENNIS PHILIP McAULIFFE, ADMINISTRATOR OF THE PANAMA CANAL COMMISSION. I AM PLEASED TO JOIN THE HONORABLE ROBERT W. PAGE TO PRESENT THE BUDGET PROGRAMS FOR FISCAL YEAR 1990 OF THE PANAMA CANAL COMMISSION, THE AGENCY RESPONSIBLE FOR THE OPERATION OF THE PANAMA CANAL.

MILESTONE

THIS YEAR, WE TAKE AN EXTRA MEASURE OF PRIDE IN OUR REPORT TO YOU, AS IN 1989 WE WILL BE CELEBRATING THE 75th ANNIVERSARY OF THE PANAMA CANAL. SINCE 1914, THE PANAMA CANAL HAS BEEN OPEN TO WORLD COMMERCE, PROVIDING SAFE AND EFFICIENT SERVICE TO ITS CUSTOMERS. THIS RECORD OF SERVICE IS AN ACCOMPLISHMENT THAT FEW GOVERNMENT ENTERPRISES CAN MATCH IN TODAY'S BUSINESS ENVIRONMENT. AS WE CELEBRATE THIS IMPORTANT EVENT, ALL WHO HAVE BEEN INVOLVED IN THIS OPERATION OVER THESE YEARS, CAN BE EXTREMELY PROUD OF THE ROLE THAT THEY HAVE PLAYED IN THIS ACHIEVEMENT. I WOULD ALSO JOIN WITH MR. PAGE IN RECOGNIZING THE VITAL IMPORTANCE OF THE MEMBERS OF THIS COMMITTEE AND THEIR STAFF IN ACHIEVING THIS MILESTONE.

OVERVIEW FISCAL YEAR 1988

MR. PAGE HAS TOUCHED UPON MANY OF THE CHAOTIC EVENTS OF THIS PAST YEAR. THESE EVENTS HAVE AFFECTED ALL COMMISSION EMPLOYEES TO A GREATER OR LESSER EXTENT. IT IS A TRIBUTE TO THEM THAT, DESPITE THIS DAILY STRESS, THEY HAVE SUSTAINED THE COMMISSION'S OPERATIONS. WITH RESPECT TO THE FISCAL YEAR 1988 FINANCIAL RESULTS, DESPITE SOME UNANTICIPATED COSTS ASSOCIATED WITH THE POLITICAL UNREST DURING THE YEAR, AS WELL AS A VERY ERRATIC TOLLS PERFORMANCE, WE WERE ABLE TO COME CLOSE TO THE PROJECTED BREAK-EVEN OPERATION FOR THE YEAR. THE FINAL OPERATING RESULTS SHOWED A MODERATE LOSS OF APPROXIMATELY $1.8 MILLION. AS PROVIDED FOR IN THE PANAMA CANAL ACT, THIS LOSS WILL BE CARRIED FORWARD FOR FUTURE RECOVERY.

OUTLOOK FOR FISCAL YEAR 1989

THE COMMISSION'S BUDGET BOOKLET BEFORE YOU PROJECTS A MODERATE LOSS OF $2.5 MILLION FOR FISCAL YEAR 1989, REFLECTING THE COMMISSION'S DECISION TO DEFER THE TOLL RATE INCREASE INITIALLY PLANNED FOR THAT YEAR. HOWEVER, IT NOW LOOKS LIKE TOLLS AND OTHER REVENUES WILL COME UNDER THE LEVELS PROJECTED RESULTING IN A SOMEWHAT LARGER LOSS THAN ANTICIPATED. AS YOU KNOW, ALL LOSSES ARE CARRIED FORWARD FOR RECOVERY IN FUTURE YEARS. ACCORDINGLY, THE FISCAL YEAR 1989 LOSS WILL BE AN ELEMENT OF COST IN THE FORTHCOMING TOLL RATE INCREASE REFERRED TO BY MR. PAGE.

FISCAL YEAR 1990 OPERATIONS

TOTAL OPERATING COSTS IN 1990 AS PROJECTED IN THE COMMISSION'S BUDGET JUSTIFICATION BOOKLET ARE ESTIMATED AT $481.3 MILLION. THIS AMOUNT INCLUDES PAYMENTS TO PANAMA TOTALING $82.1 MILLION, COMPRISING NET TONNAGE PAYMENTS OF $62.1 MILLION, A FIXED ANNUITY OF $10.0 MILLION, AND PAYMENT FOR PUBLIC SERVICES OF $10.0 MILLION. OPERATING REVENUES IN 1990 ARE ESTIMATED AT $486.2 MILLION. OF THIS TOTAL, $365.8 MILLION IS DERIVED FROM TOLLS ASSESSED TRANSITING VESSELS AND $120.4 MILLION ARE ESTIMATED REVENUES FOR OTHER SERVICES PROVIDED TRANSITING VESSEL, THE REPUBLIC OF PANAMA, OTHER U.S. GOVERNMENT AGENCIES OPERATING IN PANAMA AND OTHERS ELIGIBLE FOR SERVICES UNDER THE TERMS OF THE TREATY. THE TOLLS ESTIMATE REFLECTS THE PROJECTION OF A MODEST TOLL RATE INCREASE THAT IS EXPECTED TO BE EFFECTIVE AS OF OCTOBER 1, 1989. THE TOLL RATE INCREASE ALSO PROVIDES FOR THE RECOVERY OF THE 1987 OPERATING LOSS OF $0.6 MILLION, THE 1988 OPERATING LOSS OF $1.8 MILLION AND AN ESTIMATED LOSS IN FISCAL YEAR 1989 OF $2.5 MILLION.

THE TRAFFIC OUTLOOK FOR FISCAL YEAR 1990 REFLECTS A MODEST DECLINE IN THE NUMBER OF TRANSITS AND TOLL REVENUES FROM THE LEVELS SHOWN FOR FISCAL YEAR 1989.

THIS DECLINE IS PREDICATED ON THE ANTICIPATED DOWNTURN IN THE AUTOMOBILE TRADE, COMBINED WITH SLOWDOWN IN THE GROWTH RATE OF CONTAINER TRAFFIC AND WEAKNESS IN CERTAIN KEY BULK TRADES. THIS ANTICIPATED LOWER BUT STABLE REVENUE OUTLOOK, COUPLED WITH RISING INFLATION, ARE THE PRINCIPAL REASONS WHY A TOLL RATE INCREASE IS REQUIRED FOR FISCAL YEAR 1990. IN THIS REGARD, I BELIEVE THAT IT IS IMPORTANT TO POINT OUT THAT THERE HAVE BEEN NO PRICE INCREASES OVER A PERIOD OF ALMOST SEVEN YEARS, WHICH REPRESENTS AN EXTRAORDINARY LEVEL OF PRICE STABILITY TO OUR CUSTOMERS.

CONGRESSIONAL LIMITATIONS

FOR THOSE ITEMS UNDER CONGRESSIONAL LIMITATION, THE COMMISSION IS REQUESTING A TOTAL OF $52,000 FOR OFFICIAL RECEPTION AND REPRESENTATION EXPENSES, OF WHICH (A) NOT MORE THAN $12,000 MAY BE AVAILABLE TO THE SUPERVISORY BOARD OF THE COMMISSION, (B) NOT MORE THAN $6,000 MAY BE AVAILABLE FOR SUCH EXPENSES OF THE SECRETARY OF THE

COMMISSION, AND (C) NOT MORE THAN $34,000 MAY BE AVAILABLE TO THE ADMINISTRATOR OF THE COMMISSION.

WITH RESPECT TO ADMINISTRATIVE EXPENSES, THE REVOLVING FUND LEGISLATION LIMITS SUCH EXPENSES TO THE AMOUNT PROVIDED ANNUALLY IN APPROPRIATION ACTS. AS PROVIDED IN THE PRESIDENT'S BUDGET FOR FISCAL YEAR 1990, THE COMMISSION PROJECTS A REQUIREMENT OF $49.9 MILLION FOR THIS CATEGORY OF EXPENSE. THE ESTIMATE IN 1990 IS ACTUALLY MODESTLY BELOW THE LIMITATION SET FOR FISCAL YEAR 1989. I WOULD LIKE TO ADDRESS IN MORE DETAIL THE FUNCTIONS THAT ARE INCLUDED IN THIS CATEGORY.

1. EXECUTIVE DIRECTION, $11.8 MILLION. THIS PROVIDES FOR THE MANAGEMENT, PLANNING, DIRECTION, AND CONTROL OF OVERALL COMMISSION ACTIVITIES, SUCH AS THE OFFICE OF THE ADMINISTRATOR, OTHER ADMINISTRATIVE SERVICES, AND ALSO THE COST OF THE SECRETARY'S OFFICE IN WASHINGTON, D.C.

2. OPERATIONS DIRECTION, $2.3 MILLION. THIS PROVIDES FOR THE BUREAU-LEVEL DIRECTION AND COORDINATION OF SEPARATE OPERATING BUREAUS WHICH ARE DIRECTLY RELATED TO THE TRANSIT AND SUPPORT FUNCTIONS OF THE COMMISSION.

3. FINANCIAL MANAGEMENT, $13.9 MILLION. THIS FUNCTION IS RESPONSIBLE FOR THE DEVELOPMENT OF FINANCIAL, ACCOUNTING, AND RATE-MAKING POLICIES, ESTABLISHMENT OF SYSTEMS OF INTERNAL CONTROL, AND PROCESSING OF THE COMMISSION'S BIWEEKLY PAYROLL.

4. PERSONNEL ADMINISTRATION, $4.2 MILLION. THIS FUNCTION HAS THE AGENCY-WIDE RESPONSIBILITY FOR PERSONNEL ADMINISTRATION AND MANAGEMENT, AND THE JOINT PERSONNEL PROGRAM THAT PROVIDES STAFFING SERVICES FOR PARTICIPATING FEDERAL AGENCIES IN THE PANAMA CANAL AREA.

5. EMPLOYMENT COSTS, $17.8 MILLION. THIS CATEGORY OF EXPENSE COVERS CERTAIN EMPLOYMENT COSTS OF THE COMMISSION WHICH ARE GENERAL IN NATURE AND NOT IDENTIFIED WITH OTHER SPECIFIC ACTIVITIES. INCLUDED ARE PROVISIONS FOR REIMBURSEMENT TO THE DEPARTMENT OF DEFENSE FOR EDUCATION AND HOSPITAL SERVICES, THE COMMISSION'S SHARE OF PREMIUM COSTS FOR EMPLOYEES' HEALTH BENEFITS INSURANCE, EMPLOYEES' HOME LEAVE TRAVEL AND REPATRIATION COSTS.

CAPITAL REQUIREMENTS

TURNING TO THE CAPITAL PROGRAM FOR FISCAL YEAR 1990, WE ARE PROJECTING A REQUIREMENT FOR $32 MILLION FOR NEW CAPITAL PROJECTS. AS IN PAST YEARS, THE GREATEST PORTION OF THE PROGRAM IS DEVOTED TO ESSENTIAL TRANSIT FACILITIES AND EQUIPMENT. MAJOR ITEMS IN THE 1990 PROGRAM INCLUDE CONTINUED UPGRADING OF THE FIRE PROTECTION SYSTEM AT THE LOCKS; REPLACEMENT OF CERTAIN FLOATING EQUIPMENT; THE DESIGN AND INSTALLATION OF IMPROVED LOCOMOTIVE TURNTABLES AT THE LOCKS; PROCUREMENT OF A LARGE MECHANICAL PLANER FOR

INDUSTRIAL TYPE PURPOSES; AND THE REPLACEMENT OF ELECTRICAL SWITCHGEAR COMPONENTS AT THE LOCKS.

INCREASED PANAMANIAN PARTICIPATION

STEADY PROGRESS HAS BEEN MADE IN OUR EFFORTS TO MEET THE TREATY MANDATE OF INCREASED PANAMANIAN PARTICIPATION IN THE CANAL'S OPERATION. IN ADDITION TO THE RECENT APPOINTMENT OF A PANAMANIAN TO THE POSITION OF PERSONNEL DIRECTOR, SEVERAL OF OUR LARGEST OPERATING ORGANIZATIONS ARE NOW HEADED BY PANAMANIANS. THESE INCLUDE THE LOCKS OPERATION, OUR DREDGING OPERATIONS, AND THE CANAL SERVICES OPERATIONS WHICH HAS RESPONSIBILITY FOR ALL TUG, LAUNCHES AND LINEHANDLER FUNCTIONS IN THE CANAL. THIS INCREASED PARTICIPATION OF QUALIFIED PANAMANIAN EMPLOYEES IN KEY POSITIONS HAS SERVED TO STRENGTHEN OUR RELATIONS WITH OUR PANAMANIAN EMPLOYEES AND THE COMMUNITY AT LARGE.

CONCLUSION

BEFORE CONCLUDING MY REMARKS ON THE 1990 BUDGET, I WOULD LIKE TO POINT OUT THAT WHILE THE COMMISSION HAS EXPERIENCED A VERY UNUSUAL AND DEMANDING YEAR, RESULTING PRINCIPALLY FROM THE POLITICAL DIFFICULTIES WITHIN THE REPUBLIC OF PANAMA, THE CANAL HAS REMAINED OPEN, PROVIDING SAFE AND EFFICIENT SERVICE TO ALL CANAL CUSTOMERS. THIS FACT IS DUE PRIMARILY TO THE DEDICATION AND PROFESSIONALISM OF COMMISSION EMPLOYEES, U.S., PANAMANIAN, AND THIRD COUNTRY NATIONALS, MANY OF WHOM HAVE BEEN DIRECTLY IMPACTED BY THESE EVENTS. I JOIN MR. PAGE IN COMMENDING THE COMMISSION WORK FORCE FOR ITS OUTSTANDING PERFORMANCE.

QUESTIONS SUBMITTED BY SENATOR LAUTENBERG

U. S. - PANAMA RELATIONS AND COMMISSION FUNDING

Please update the following (pages 858-859):

SENATOR LAUTENBERG. The Administration, in its prior effort to force the removal of General Noriega, whose government it has supported for several years, has, I understand, directed the Commission to withhold certain payments from Panama under the Panama Canal treaty and related legislation. What payments are currently being withheld?

Answer. Payments to the Government of Panama that are currently being deposited into the Government of Panama's account with the Federal Reserve Bank of New York include treaty payments (annuity, public service and net tonnage), income and educational tax withholdings from the salaries of Panamanian employees and other miscellaneous items.

SENATOR LAUTENBERG. How much has been withheld to date from the various payments due Panama under the Treaty?

Answer. As of May 15, 1989, $105.8 million has been withheld. The following tabulation identifies the amounts withheld:

Net Tonnage Payment	57,078,204.83
Fixed Annuity	12,500,000.00
Public Services	12,500,000.00
Total Treaty Payments	82,078,204.83
Employees' Income Tax	21,511,642.36
Employees' Educational Tax	2,068,536.89
Miscellaneous Services by the Govt. of Panama	174,215.40
Grand Total	$105,832,599.48

SENATOR LAUTENBERG. Are these funds retained in the Commission's Revolving Fund, or are they in some other account?

Answer. As directed by the Secretary of the Treasury, these funds are in an escrow account in the Federal Reserve Bank of New York specifically reserved for the recognized Government of Panama.

SENATOR LAUTENBERG. What impact has withholding these funds had on the Commission, Canal operation, and the prospects for orderly transfer of the Canal at the end of this century?

Answer. Initially, prohibitions established by the Presidential Executive Order included payments to the Noriega regime for Panamanian utilities used by the Commission, such as long-distance telephone services; Panamanian Social Security

benefits for some 4,000 post-Treaty Commission employees and their dependents who are covered by that system; and income and educational taxes withheld from salaries and owed to Panama by all of the Commission's approximately 7,000 Panamanian employees.

As reported at last year's hearings, in May 1988 the Department of the Treasury authorized direct payment of bills to Panamanian utility agencies. In July of that same year, the Treasury Department acquiesced in the resumption of Commission payments of the employer/employee contributions for Panamanian Social Security on humanitarian grounds. By allowing these payments, the United States reversed regime plans to curtail or terminate health services and retirement benefits to eligible Commission employees and dependents.

The amounts being withheld from the salaries of Panamanian employees for income tax and educational insurance since the economic sanctions were instituted last year continue to be paid into a designated escrow account, instead of to the Noriega regime. As a consequence, the regime moved against this group of employees earlier this year by prohibiting their travel outside the country, withdrawing their right to conduct many business transactions and refusing to issue them automobile license plates for 1989. In addition, Panama's Treasury instituted collection actions against selected Panamanian Commission employees, which have resulted in the seizure of privately owned vehicles and the freezing of individual bank accounts.

The Commission is trying to assist these employees in every way possible. It has promised to mitigate losses that may be incurred through the confiscation or sale of their property, including reimbursement for attorney fees in connection with administrative collection actions instituted against them by the regime. An emergency shuttle bus service has been put into operation by the Commission circulating between work sites at the Canal and designated pick-up points. In addition, the Commission is paying $7.00 per day to approximately 2,000 Panamanian employees who have been prevented from using their privately owned vehicles for home-to-work transportation. The cost of these initiatives is now running some $500,000 to $600,000 per month.

None of the foregoing measures, however, offers a fully satisfactory solution to a continuing and worsening burden for these individuals. Consequently, the morale of our Panamanian employees, who now comprise 85 percent of the Commission's work force, has fallen to a new low. If this situation is not remedied, it could result in a significant deterioration in the safety and efficiency of the waterway.

SENATOR LAUTENBERG. Will these funds be used to make payments to Panama in the future? If so, when? (Please elaborate with respect to each type of payment.)

Answer. As indicated earlier, these funds have been deposited to the Government of Panama's account with the

Federal Reserve Bank of New York in accordance with the governing U.S. Treasury regulations. Those regulations do not authorize the Commission to withdraw funds from that account for any purpose. Accordingly, it is presumed that the Department of the Treasury will effect the transfer of the balance in the account to the legitimate Government of Panama in the time and manner as may be agreed by the United States and Panama once the United States recognizes a new Panamanian Government and the relevant U.S. Treasury regulations are revoked.

SENATOR LAUTENBERG. Please provide an assessment of the impact of the national election held on May 7, 1989 on the future operation of the Canal.

Answer. The final outcome of the national election held on May 7 is not yet certain, although the Noriega regime has attempted publicly to nullify the apparent results. In any event, whatever faction is in power in Panama at the end of this year will propose a Panamanian national for appointment by the United States to occupy the position of Administrator of the Panama Canal Commission, effective January 1, 1990. It can be anticipated that if the Noriega regime continues in power, its nomination will encounter considerable resistance during the confirmation process.

In the meantime, the upheaval being experienced in Panama in the immediate aftermath of the May 7 election has already had an adverse effect on many of the Commission's Panamanian employees. A number of them have been arrested simply for participating in political activities related to the election, (a right rather than a crime) and some of them have been given jail sentences of up to 60 days. We also expect the regime to renew and even increase its persecution of Panamanian employees over the question of withheld income and educational taxes. While these developments do not augur well for what lies ahead, it must be noted that Commission absenteeism is low and all operations continue unimpeded for the time being. Despite considerable personal sacrifice and psychological duress, the work force has continued with customary professionalism to provide safe and efficient transit to world shipping.

PANAMA CANAL SECURITY

SENATOR LAUTENBERG. In fiscal 1988, you indicated that the U.S. Southern Command was planning measures to strengthen security of the Canal and associated facilities in the Canal area. You also indicated that Commission relations with the Panamanian Defense Forces had been excellent and "very much attuned to the possibilities of a threat situation..." at the Canal. Do you remain confident of the Panamanian Defense Forces in light of our current relations with the Noriega regime?

Answer. Under the terms of the 1977 Panama Canal Treaty, the Panama Defense Forces (PDF) are responsible for providing police protection in Canal operating and housing areas, and for cooperating with the U.S. to guarantee the security of the

Commission and its property, as well as its employees and their families.

In the past year there has been a substantial and notable increase in the number of thefts of agency property as well as burglaries and robberies perpetrated against employees and dependents residing in Commission housing areas. This includes a number of cases of stolen automobiles. With regard to Commission property, we are particularly concerned over the theft of buoys, lights, solar panels and batteries from navigational aids, since such losses directly threaten the safe operation of the waterway.

Although all of the incidents noted above were duly reported to the PDF, very few of the stolen items have been recovered, and the incident rate has not abated significantly. While there is no evidence that the PDF have intentionally neglected to fulfill their Treaty obligations, neither have they been as vigilant as necessary in order to provide truly adequate security. The Commission will continue to insist that the PDF redouble their efforts in this regard.

CHANGE IN COMMISSION ADMINISTRATOR

SENATOR LAUTENBERG. What does the current relationship with the Noriega regime lead us to assume with respect to the assumption of the Administrator's office by a Panamanian national on January 1, 1990?

Answer. Further to what has already been said, recent actions by the Noriega regime have had the undesired effect of drawing the management and operation of the Panama Canal into the political arena. The regime's position has also been reflected by the Panamanian members of the Board of Directors, who have not actively participated in a meeting of the Board for more than a year. It is almost certain that if the current relationship continues, or deteriorates even further, a regime nominee for the position of Administrator will be strongly opposed during the confirmation process.

SENATOR LAUTENBERG. What role will the Commission have in the selection of an acceptable candidate?

Answer. The Commission will have no role in the selection of the Panamanian Administrator.

REVENUE PROJECTIONS

You project revenues of $486.2 million, including $365.8 million from tolls of which $31.3 million derives from a toll increase.

SENATOR LAUTENBERG. Provide for the record a table comparing your revenue projections for fiscal years 1985-1988 with actual revenues realized broken out by tolls versus other revenue sources (pages 860-861).

Answer. The following tabulation compares the Commission's revenue projections versus the actual revenues realized for fiscal years 1985-1988 by tolls and other sources.

	President's Budget (Initial Estimate)	Following Year President's Budget (Revised Estimate)	Actual
Tolls	(In thousands of dollars)		
1985	315,000	310,000	300,808
1986	320,000	311,000	322,734
1987	312,000	333,000	329,859
1988	339,000	339,000	339,310
Other Revenues			
1985	125,486	118,663	105,915
1986	124,573	119,473	104,658
1987	125,370	109,927	106,274
1988	117,309	110,081	110,088

SENATOR LAUTENBERG. What are your current toll rates and what increase(s) does the $31.3 million increase in revenues reflect?

Answer. The current toll rates charged transiting vessels are as follows:

	Toll Rates
Laden vessels	$1.83
Ballast vessels	1.46
Displacement ton	1.02

The $31.3 million increase in tolls revenue assumes a rate increase of approximately 9.1% to be effective October 1, 1989.

SENATOR LAUTENBERG. What would the increase be on a full year basis?

Answer. The estimated full year impact of a 9.1% toll rate increase placed into effect on October 1, 1989 would amount to $31.3 million.

SENATOR LAUTENBERG. Why is a toll increase necessary?

Answer. Public Law 96-70, the Treaty implementing legislation, stipulates that toll rates shall be established to cover all costs of maintaining and operating the Panama Canal. This mandate of law is the basic financial framework under which the Commission operates. The last toll rate increase occurred some seven years ago in March 1983. For the better part of this seven-year period, the Commission has been able to absorb the effects of inflation.

During fiscal year 1987 the Commission had a loss of $0.6 million. The Commission also experienced a loss of $1.8 million in fiscal year 1988. Moreover, in fiscal year 1989, the Commission is projecting another loss of some $2.5 million. Even though these losses are relatively minor, three years of consecutive and increasing losses point to a trend in the growth of traffic revenues being inadequate to absorb cost increases due to inflation.

The full impact of this trend is reflected in the fiscal year 1990 budget where the projected growth in revenue has been insufficient to cover the Commission's costs which have been increasing at the rate of some 3% to 5% per year since fiscal year 1988. The $31.3 million toll-increase requirement projected for that year is to cover the expected loss of $26.4 million (resulting principally from two years of inflation) that would otherwise occur plus the unearned costs totalling some $4.9 million for the previous three fiscal years.

SENATOR LAUTENBERG. Will the toll increase you plan result in the diversion of traffic from the Canal? If not, why not?

Answer. Based on previous experience and studies prepared by consultants under contract to the Panama Canal Commission, the expected toll rate increase will not result in a diversion of traffic from the Canal. All studies have been consistent in concluding that small toll rate increases -- less than 15 percent -- would have no significant impact on Canal activity due to the limited likelihood of finding a better non-Canal alternative, the two to four year response time required by shippers or vessel operators to adjust their routes or sources and the normal magnitude of trade fluctuations.

BORROWING AUTHORITY

SENATOR LAUTENBERG. P. L. 100-203 also provides borrowing authority of up to $100 million for the Commission. For what purposes can the Commission use this borrowing authority? Has it been used? Does the Commission anticipate using the authority in 1990?

Answer. The Panama Canal Commission Revolving Fund Act provides the Commission with a borrowing authority of $100 million outstanding at any time. This authority serves essentially as a line-of-credit to backstop Commission obligations that are in excess of its expected cash receipts.

The Commission projects the need to use a portion of this authority in fiscal year 1990 to cover $9.257 million of obligations that are in excess of its estimated cash resources. The Commission anticipates having the resources on hand to cover the payment of these obligations when they become due and payable. Accordingly, no actual borrowings of funds would be involved.

ADMINISTRATIVE EXPENSES

SENATOR LAUTENBERG. Your program and Financing Schedule shows an estimate of $49.9 million for administrative expenses in fiscal 1990, a decrease of $.3 million from fiscal 1989 (page 4). What is the basis for this reduction?

Answer. The Commission's administrative expenses for FY 1990 are estimated at $49.9 million. A large portion of this is for certain non-discretionary costs such as employees' home leave travel, payments to Department of Defense for health and education services, the Commission's contribution to employee

health benefits under the Federal Employees Health Benefits Act (FEHBA) and certain other Commission employment costs which are statutory in nature.

Certain of these costs have increased during the fiscal year, while others, which are associated with specific portions of the employee population, such as school sponsorship, have declined. The net effect of these changes has been the slight decrease of $0.3 million.

SENATOR LAUTENBERG. Your justification also projects $42.369 million in fiscal year 1990 for "General expense not under limitation." Provide for the record a list of activities in this category and explain why these expenses are not subject to limitation.

Answer. The fiscal year 1990 estimate for "General expenses not under limitation" is $42,369 million. Included in this amount are the following costs:

		(In millions of dollars)
a.	Interest expenses on the U.S. Government's net direct investment in the Panama Canal ...	13,461
b.	Amortization of special retirement program (in accordance with Subchapter IV of the Panama Canal Act of 1979 Public Law 96-70) ..	15,160
c.	Cost of Training Administration and Courses ...	2,851
d.	Commission payments under the Federal Employees Compensation Act (FECA)	5,854
e.	Incentive Awards (Payments to employees to reward performance, suggestions, and length of service)	750
f.	Accrual for future Commission liability under FECA	5,500
g.	Alien Cash Relief and Home Care Program (Cash pensions to former non-U.S. citizen employees not covered under the Civil Service Retirement System and related health care as authorized)	1,205
h.	Miscellaneous expenses (including severance pay and an offsetting depreciation credit for assets purchased with capital advance funds)	-2,412
	TOTAL OTHER GENERAL EXPENSES	$42,369

The above expenses are not under limitation because they are (a) Treaty-driven (such as the special retirement cost and training), (b) handled similar to the way they were before treaty when there was an administrative limitation (e.g. interest expense, payments under FECA and Alien Cash Relief, home care program and (c) not requiring the outlay of funds (e.g. accrual for future Commission liability under FECA.)

Specifically, the Commission's training costs have been excluded from the administrative area because of the Treaty-mandated emphasis on accelerated training for Panamanian employees to prepare the Panamanian workforce to assume responsibility for the Panama Canal in the year 2000.

SENATOR LAUTENBERG. Update the table on pages 865 and 866 of last year's hearing record for fiscal 1989 and provide a brief explanation of the grants awarded.

Answer. Cash grants are awarded to employee and community organizations to provide needed funds to maintain the operation of these groups in order to sustain employee morale.

Organizations are required to utilize funds generally for improvements, renovations, and repairs to their buildings, clubhouses, docks and marinas, and for the purchase and replacement of equipment. The following amounts were spent for these purposes in fiscal years 1987, 1988, and through February 1989.

	FY 1987	FY 1988	Thru Feb 89 FY 1989
American Pacific Sportsmen's Assoc.	$ 1,500.00	$ -	$ -
Balboa Gun Club	-	2,500.00	-
Brazos Brook Club	3,000.00	-	1,500.00
Gatun Saddle Club	-	-	2,500.00
Gatun Yacht Club	5,000.00	5,000.00	-
Industrial Softball League/Pacific	2,000.00	2,000.00	-
Industrial Softball League/Atlantic	700.00	1,000.00	-
Junior Football League (Balboa Rams)	1,300.00	5,000.00	3,200.00
Pacific Girls Softball League	-	300.00	-
Pacific Little League	-	1,350.00	-
Pacific Teenage Baseball League	5,000.00	-	-
Panama Canal Tarpon Club	4,000.00	3,000.00	-
PCC Employee Running Club	-	1,000.00	400.00
The Theater Guild, Inc.	2,500.00		3,000.00
TOTAL	$25,000.00	$21,150.00	$10,600.00

SENATOR LAUTENBERG. Provide for the record a schedule of positions of the offices subsumed by Executive Direction broken out by grade, compensation, and average compensation/position at each grade (pages 866-868).

Answer. The following schedule shows current positions, basic compensation and average basic compensation/position at each grade for the Offices of Executive Administration (including the Administrator's staff, Administrative Services staff, Office of Public Affairs, Guide Services, and Office of the Commission Secretary):

Pay Level	FTP Positions	Basic Compensation (In Thousands of Dollars)	Avg. Basic Compensation
Office of the Admin. and Staff:			
AD	1	76	76
CX	1	75	75
KX	3	226	75
NM-15	6	437	73
NM-14	9	520	58
NM-13	18	946	53
NM-12	12	512	43
NM-11	11	382	35
NM-10	1	33	33

Pay Level	FTP Positions	Basic Compensation (In Thousands of	Avg. Basic Compensation Dollars)
WM-09	2	51	26
WM-08	1	32	32
WM-07	7	179	26
WM-06	11	230	21
WM-05	5	62	12
WM-04	5	57	11
WM-03	1	13	13
WM-01	1	9	9
MG-09	1	17	17
	96	3857	40
Administrative Services			
WM-13	1	47	47
WM-12	6	256	43
WM-11	10	358	36
WM-10	5	145	29
WM-09	9	269	30
WM-08	1	36	36
WM-07	13	320	25
WM-06	6	118	20
WM-05	11	139	13
WM-04	7	83	12
WM-03	6	79	13
WM-02	1	10	10
WX-05	1	26	26
WX-04	1	18	18
	78	1904	24
Office of Public Affairs			
WM-15	1	70	70
WM-14	1	72	72
WM-13	1	55	55
WM-12	3	122	41
WM-11	2	72	36
WM-10	4	124	31
WM-09	9	243	27
WM-08	1	26	26
WM-07	5	115	23
WM-06	1	20	20
WM-05	3	46	15
WM-04	1	13	13
	32	978	31
Guide Service			
WM-09	1	29	29
WM-08	1	24	24
WM-07	3	69	23
WM-06	2	35	18
	7	157	22

Pay Level	FTP Positions	Basic Compensation (In Thousands of Dollars)	Avg. Basic Compensation
Office of Commission Secretary:			
EX	1	75	75
GS-13	4	177	44
GS-09	1	25	25
GS-05	1	17	17
	7	294	42

SENATOR LAUTENBERG. What is your request for consultants in 1990? How does it compare to fiscal 1988 and 1989?

Answer. In 1990, the Commission's requirement for consultants and advisors service is estimated at $315,000. This compares with an actual amount in 1988 of $292,000, and the estimated requirements in 1989 of $345,000.

SENATOR LAUTENBERG. Please provide a list of all consultant contracts by year for fiscal year 1986-1989 (to date). Also include a brief description of the project, study or service; total contract costs; type of contract award (i.e., sole source or competitive); and the name and address of the consultant or contractor (pages 868-871).

Answer. The following table shows consulting services contracted by the Panama Canal Commission during fiscal years 1986-1989 through April YTD:

Consultant Address and Project Description	Type of Contract	FY 1986	FY 1987	FY 1988	FY 1989 Thru April
		(In Thousands of Dollars)			
Total		$439	$282	$292	$242
Associates for International Research, Inc. Cambridge, Mass.					
Cost of living impact study on U.S. and Panamanian employees who lost certain privileges as a result of the Panama Canal Treaty of 1977.	Sole Source	11	21	4	

Consultant Address and Project Description	Type of Contract	FY 1986	FY 1987	FY 1988	FY 1989 Thru April
		(In Thousands of Dollars)			
Temple, Barker & Sloan, Inc. Boston, Mass.					
Sensitivity analy. of rate increases and benefits derived from the widening of the Gaillard Cut.	Competitive	11	-	90	107
Arthur Andersen & Co.					
Assistance, recommendations, studies and reports in areas of accounting policies and toll rates policies and revisions.	Competitive	208	101	198	135
Technical Advisory Service for Attorneys (TASA)					
Marine Engineer and Naval Architect services regarding tug litigations (Crowley Maritime Corp. and Puget Sound Tug and Barge Co. vs. the PCC.	Competitive	-	3	-	-
Warren, McVeigh & Griffin, Inc. Risk Manag. Consultants, Newport Beach, CA.					
Recommendations and expert advice in connection with the procurement of catastrophe insurance for the Commission.	Competitive	-	17	-	-

Consultant Address and Project Description	Type of Contract	FY 1986	FY 1987	FY 1988	FY 1989 Thru April
		(In Thousands of Dollars)			
C. J. Spivey Charlotte, NC					
Recommendations and expert advice in connection with the procurement of catastrophe insurance for the Commission.	Sole Source	-	1	-	-
Bear, Stearns & Co. New York, N. Y.					
Study of the financial alternatives for widening of Gaillard Cut.	Competitive	125	122	-	-
Hector Maldonado Rio Piedras, PR					
Assistance in updating the PCC's housing rental rates based on comparability with Mayaguez, Puerto Rico.	Sole Source	3	-	-	-
Management Concepts Inc., Vienna, VA					
Services to review and update the agency's acquisition procedures and regulations.	Competitive	61	-	-	-
Mr. M. Stanton Hunter San Diego, CA					
Services of a hearing examiner in connection with labor relations cases.	Sole Source	10	5	4	-

Consultant Address and Project Description	Type of Contract	FY 1986	FY 1987	FY 1988	FY 1989 Thru April
		(In Thousands of Dollars)			
Mr. Neil M. Gunderman Macison, Wisconsin					
Services of a hearing examiner in connection with labor relations cases.	Sole Source	-	8	-	-
CACI, Inc. Arlington, VA					
Evaluation of the PCC English language training program.	Competitive	-	21	-	-

SENATOR LAUTENBERG. What are you projecting for incentive awards in fiscal 1990?

Answer. The Commission is projecting the requirement for $750,000 for incentive awards in fiscal year 1990.

SENATOR LAUTENBERG. Please update the list of incentive awards appearing on pages 872-874 of last year's hearings for fiscal 1988.

Answer:

PERFORMANCE AWARDS OF $1,000 AND ABOVE
FISCAL YEAR 1988

NAME	Occup. Title	Type of Award
Allen, Virginia K.	Admin Officer	OP
Arias C., Agustin A.	Industrial Engineer	OP
Arias, Elvira I.	Svy PR Staff Spc	OP
Baerg, Judith A.	Svy Emp Dev Spc	OP
Beck, Erling S.	Pilot	OP
Beers, John A.	Pilot	OP
Beliz S., Anel E.	Public Affairs Spc	OP
Boatwright Jr., Robert J.	Budget Officer	OP
Bosarge, Carrall A.	Pilot	OP
Bost Jr., Raymond R.	CHF E-I-C, towboat	OP
Boyer, Robert R.	Canal Port Cptn	OP
Brayton, Rodman F.	Program Manager	OP
Bright Jr., Richard	Pilot	OP
Burgoon, Richard O.	Financial Manager	OP
Castillo B., Carlos H.	MS-IN-CHG, Twbt	OP

NAME	Occup. Title	Type of Award
Chan, Patricia	SF Acnt	OP
Cheville, Richard A.	MD Off (OC M-A)	OP
Chism, Edward M.	Program Manager	OP
Clarke Jr., George C.	Pilot	OP
Connelly, John G.	Pilot	OP
Crespo, Rudolph L.	Mgmt Svcs Offcr	OP
Diaz C., Juan H.	Env+En Cnt Spc	OP
Drew, William	Pilot	OP
Duty, Thomas C.	Admin Svcs Offcr	OP
Eastham, Paul	Pilot	OP
Eckerle, Charles E.	Svy SF Acnt	OP
Eva Jr., Enio	Chief Eng, Twbt	OP
Ferrara, James E.	Admin Svcs Officer	OP
Friar, Willie K.	Public Affairs Spc	OP
Fuller, Barbara A.	Staff Assistant	OP
Gaines, Charles P.	Pilot	OP
Goldsberry Jr., K. E.	Admin Svcs Offr	OP
Goodwin Jr., Carey J.	Mgmt Inf Sys Off	OP
Haines Jr., John L.	Svy Gn Attorney	OP
Harvey, Hugh E.	Port Manager	SPA
Henriquez A., Silverio	MR SFY Spc (HM)	OP
Holden, Robert L.	Pilot	OP
Hull, George T.	MR Opns Director	OP
Joyce, William J.	Financial Mgr	OP
Judge, Thomas P.	Rates Anl	OP
Kaliszczak, Tadeusz J.	Payrl Sys Off	OP
Kerivan, William R.	Gen Attorney (Contract)	OP
Krapfl, William H.	Locks Opns Fmn	OP
Laverty Jr., Raymond P.	Program Manager	OP
Ledezma, Barbara A.	Pers Mgmt Spc	OP
Liehr, Peter A.	Supvy Auditor	OP
Lindley-Dominguez, P. J.	Svy Gn Attorney	OP
Lynch Jr., Valentine D.	Svy Admeasurer	OP
Manfredo Jr., Fernando	DPADMR, Pa Cn Co	OP
Marciaq, Cecilia	Svy PR SF SP(E)	OP
Mathis, James A.	Supvy Auditor	OP
McTaggart, Tilcia R.	Equal Empl Mgr	OP
Mead, Burton F.	Svy Systems Acnt	OP
Mercier, George	Director Of PR	OP
Mooldijk, Maarten P.	Pilot	OP
Morgan, Richard D.	Program Manager	OP
Morris, Regina	Svy Oprg Acnt	OP
Morrisey, Richard T.	Pilot	OP
Niedzialek, David J.	Svy Pos Cl Spc	OP
Payne, Clarence C.	Admin Svc Offcr	OP

NAME	Occup. Title	Type of Award
Pescod, Anna L.	Staff Assistant	OP
Plunkett, John J.	Supvy Gen Engr	OP
Porras, Diego F.	Pilot	OP
Pusztai W., Peter T.	Pilot	OP
Quayle H., Angel A.	Pilot	OP
Quijano A., Jorge L.	Supvy Gen Engr	OP
Quinn, Bruce A.	Ombudsman	OP
Quinn, Marc	Admin Svc Offcr	OP
Quiroz, Billy A.	Ast CF, FR Div	OP
Rhode Jr., Michael	AS to CHM+SC, PC	OP
Rodriguez, Edilma M. de	Svy PR Staf Spc	OP
Rorke, Francis J.	Pilot	OP
Rosales, Phillipa	Svy Budget Analyst	OP
Rupp, Robert H.	Pers Mgmt Spec	OP
Saarinen, Gladys D.	Staff Analyst	OP
Schmidt, Donald G.	Program Manager	OP
Seeley, Jolie A.	Admin Officer	OP
Seeley, Ronald L.	Director of PR	OP
Seeley, Wayne R.	Sml Cr Op Gn Fmn	OP
Skrable, Paul L.	Pilot	OP
Smith, Clarita T.	Labor Rel Spec	OP
Smith, George E.	Pilot	OP
Smith, James R.	CHF E-I-C, Twbt	OP
Stephenson, Michael W.	Laborer Rel Offcr	OP
Totten, Jess K.	Svy Gen Attorney	OP
Towhy, Carolyn H.	Support Svcs Spec	OP
Turman Jr., Frank	Traffic Manager	OP
Umnuss, Selma W.	Rates Anl	OP
Van Hoorde G., Rene	Program Manager	OP
Varela, Ricardo R.	Svy Eme Dvl Spc	OP
Vidaurri, Mary K.	Ast Dir of Pers	OP
Wagner, Dale	Svy MR Trffc Cn	OP
Wallace, Terrence W.	CHF I-E-C, Twbt	OP
Winberg, Rolando E.	Program Manager	OP
Witt, John G.	PIT (LTD-225 FV)	OP
Wood Jr., Joseph J.	Admin Svc Offcr	OP
Yee, Edilberto A.	Svy Trng Instr	OP
Young, Gilberto	Svy Oprg Acnt	OP
Young, Marilyn V.	Supvy Rates Anl	OP

FINANCIAL CONDITION

SENATOR LAUTENBERG. Your statement of financial condition shows several types of liabilities, totaling an estimated $385,537,000 (page 6). Explain for the record what these are.

Answer. The following tabulation provides the detail of the Commission's long term liabilities in the statement of financial condition.

	(In Thousands)
A. Accounts Payable - $37,654	
1. Accounts Payable	$ 37,654
B. Funded Accrued liabilities - $55,738	
2. Payroll payable and accrued	7,642
3. Employees leave	48,096
C. Actuarial liabilities - $215,096	
4. Cost of early retirement	136,296
5. Cash relief annuitants	6,721
6. Employee repatriation	7,020
7. FECA	65,059
D. Other liabilities - $77,049	
8. Deposit liabilities	2,901
9. Advances for capital and booking fees:	
a. amortized	51,889
b. unexpended	22,259
	$385,537

A. Accounts Payable:

1. Represents amounts payable at year end to other government agencies, the government of Panama, contractors, employees, etc.

B. Funded Accrued Liabilities:

2. This represents amounts due to employees for days worked at the end of the fiscal year that are not paid until the subsequent year. Also includes payroll benefits payable to Commission employees.

3. This represents the estimated liability for Commission employees' accrued leave.

C. Actuarial Liabilities:

4. This amount represents the Commission's liability for the unfunded liability of the U.S. Civil Service Retirement Fund which is attributable to benefits payable from the fund to, or on behalf of, employees and their survivors under the early retirement provisions of P.L. 96-70.

5. This is the short and long-term liability of the Commission for future annuity payments to non-U.S. citizen employees, or their eligible widows, from the predecessor Canal agency who retired prior to October 5, 1958 and who are not covered by the U.S. Civil Retirement System.

6. This is the Commission's short and long-term liability for the repatriation of all eligible U.S. citizen employees and their families.

7. This represents the estimated short- and long-term liability to the Panama Canal Commission Compensation Fund for job related injuries as prescribed by the Federal Employees' Compensation Act (FECA).

D. Other Liabilities:

8. This represents estimated amounts held in trust by the Commission for customers as guarantee for tolls, materials, supplies, etc. or services to be performed by the Commission. Also included are amounts payable on postal money orders from the predecessor agency, the Canal Zone Government.

9. This is the portion of collections for the capital program in excess of depreciation recoveries which are programmed annually by the Board of Directors including:

a. Collections which have been utilized and are being amortized through depreciation offsets.

b. Collections not yet used, but programmed for future years.

CAPTIAL PROGRAM

SENATOR LAUTENBERG. You are requesting $3.271 million to replace floating equipment. Have you completed the SCHLEY replacement project? Please elaborate.

Answer: The SCHLEY was originally scheduled to be replaced in FY 1989, however, due to operational and maintenance considerations the towboat replacement program has been revised. The SCHLEY is now scheduled for replacement in FY 1994. Funding associated with the SCHLEY will be used to replace another tugboat providing more efficient use of the Commission's tugboat fleet.

SENATOR LAUTENBERG. How was the $3.271 million amount to be requested determined? Could it be scheduled at a slower rate? What are the estimated out-year costs?

Answer: Current estimates are based on previous purchase cost of similar floating equipment supported by information gained through engineering estimates and informal market surveys. Replacement requirements are based upon the service life and the operating condition of the equipment to be replaced. New acquisitions are based on program demand. While procurement schedules could be accomplished at a slower rate, operational reliability could be jeopardized and essential program demands would not be met.

Current estimated costs for the replacement of floating equipment between FY 1991 and FY 1995 approximate $50 million. These estimates provide for the normal replacement of towboats, launches, barges, pontoon cylinders and buoys in addition to the possible replacement of the craneboat ATLAS and the floating crane HERCULES. Actual replacement will depend on operating condition of the equipment, program demands and the availability of funding.

SENATOR LAUTENBERG. What are the obligation and outlay rates for each of the projects proposed?

Answer: Obligation of each of the projects will occur at the time of award of the respective purchase contracts. Outlay of funds are incurred as scheduled payments are made throughout the life of the contract. Funding for inspection and transportation is obligated and paid as performed. It is expected that all projects included in the Floating Equipment category for 1990 will be fully obligated and essentially funded in FY 1990.

SENATOR LAUTENBERG. Please update the replacement schedule on p. 877 of last year's hearing record.

Answer. (The information follows:)

Name	Placed in Service	Age as of FY 1989	Planned Replacement Year	Original Cost	Estimated Repl. Cost
ROUSSEAU	1967	22	1990	735	4,275
BURGESS	1977	12	1993	2,502	4,956
WALKER	1977	12	1993	2,414	5,391
TRINIDAD II	1968	21	1995	799	5,825
SCHLEY	1968	21	1995	745	6,116
HARDING	1970	19	To be reviewed	798	To be
MEHAFFEY	1970	19	"	806	reviewed
MORROW	1971	18	"	879	"
PARFITT	1981	8	"	5,031	"
PROGRESO	1981	8	"	4,073	"
ALIANZA	1981	8	"	3,981	"
AMISTAD	1982	7	"	3,934	"
ESPERANZA	1985	4	"	2,574	"
PAZ	1986	3	"	3,683	"
GUIA	1988	1	"	3,776	"
LIDER	1988	1	"	3,507	"

The Commission has three other small tugs which provide floating equipment support for the Commission's dredging and maintenance program. In addition, an older towboat has been retained in service and is being utilized to assist ships to enter/depart the north end of Gatun Locks where vessel movement is restricted due to the ongoing installation of a locomotive turntable on the north end of the centerwall of Gatun Locks. The towboat temporarily assigned there will be utilized for this same purpose through the completion of the locks turntable project in fiscal year 1991.

SENATOR LAUTENBERG. Also, please update the other equipment replacement schedules on pages 878 and 879 of last year's hearing record.

Answer.

LAUNCHES

Name	Placed in Service	Age Years	Planned Replacement Year	Estimated Repl Cost (Current $'s)
JUAN GRANDE	1953	36	1991	$550
MACKERAL	1968	21	1994	735
REMORA	1968	21	1989	475

Name	Placed in Service	Age Years	Planned Replacement Year	Estimated Repl Cost (Current $'s)
CHUB	1968	21	To be reviewed	
COBIA	1969	20	1989	470
SNOOK	1970	19	1994	735
CORBINA	1971	18	1989	475
PIRANHA	1974	15	1992	625
ORCA	1974	15	To be reviewed	
BOBO II	1975	14	1992	625
DORADO	1975	14	To be reviewed	
PAPAGALLO	1976	13	1991	550
SKIPJACK	1976	13	1995	550
MAKO	1977	12	1995	617
QUAIL	1978	11	1995	500
SHRIKE	1978	11	2008	350
TETRA	1978	11	1995	550
DARTER	1979	10	1991	550
CORMORANT	1979	10	1991	550
HAWK	1979	10	1991	550
FRIGATE	1979	10	1991	550
PIKE	1979	10	1991	550
PARROT	1979	10	1993	550
GROUPER	1979	10	1993	550
HERON	1979	10	1993	550
SKATE	1980	9	1993	550
FLAMENCO	1981	8	2002	550
HYACINTH III	1981	8	2002	200
PARGO	1982	7	2003	550
BONITO	1982	7	2003	550
CHAME II	1982	7	To be reviewed	
DIABLO II	1982	7	"	
PAMPANO	1982	7	2003	550
TINTORERA	1982	7	2003	550
ULUA	1982	7	2003	550
FLYING FISH	1983	6	To be reviewed	
RAY II	1983	6	"	
SAILFISH II	1983	6	"	
TERN II	1983	6	"	
COLIBRI	1984	5	To be reviewed	
ALBACORE II	1987	2	"	
TRUCHA	1987	2	"	
UMBLA	1987	2	"	
XAREO	1987	2	"	

PANAMA CANAL COMMISSION
MOTOR VEHICLE FLEET
By GSA Reporting Category
May 17, 1989

GSA Category	Actual 1989 Total
PASSENGER-CARRYING VEHICLES:	
b. Sedans	180 1/
c. Station Wagons	8
d. Ambulances	7
e. Buses	13
Total passenger-carrying vehicles	208
NON-PASSENGER-CARRYING VEHICLES:	
f. Light trucks (8,500 GVW or under)	478
g. Light trucks (4x4)	40
h. Medium trucks (8,501 to 23,999 GVW)	79
i. Heavy trucks (24,000 GVW or over)	45
Total non-passenger	642
Total passenger and non-passenger	850
ADDITIONAL SPECIAL USE VEHICLES	
(Firetrucks, wreckers, drill rigs, etc.)	41
TOTAL VEHICLES	891

1/ Includes 3 leased vehicles

COMMODITY AND PORT ANALYSIS

SENATOR LAUTENBERG. Please provide a table showing calendar year tonnage and tolls by commodity for fiscal years 1985-1988 and estimates for fiscal years 1989 and 1990.

Answer: The table on the following page shows cargo tonnage by commodity group for fiscal years 1985 through 1988.

Cargo estimates by commodity for fiscal years 1989 and 1990 are not available. While extensive commodity analysis is performed in the preparation of our in-house traffic forecast, actual cargo estimates by commodity are not developed. We are currently preparing commodity forecasts that will be available for release in the near future.

In regard to the request for tolls by commodity, the Commission's method of assessing tolls does not allow statistics to be maintained on tolls revenue by commodity. Tolls are assessed on the basis of the ship's Panama Canal net tonnage regardless of the cargo carried aboard

SENATOR LAUTENBERG. Also, please provide an analysis of tonnage to or from particular U.S. ports, passing through the Canal.

Answer: The following table shows cargo movements to and from U.S. port regions during fiscal year 1988. Statistics by port are not maintained by the Panama Canal Commission.

Cargo Tonnage to and from the U.S.
FY 1988
(long tons)

	FROM	TO
North Atlantic	6,923,843	12,736,296
South Atlantic	3,947,752	3,557,738
Great Lakes Ports	194,402	233,076
Gulf Ports	51,872,143	9,911,848
U.S. Other 1/	2,786,397	3,196,212
Alaska	739,986	15,961
Hawaii	308,414	26,700
U.S. West Coast	9,274,488	6,115,817
Total	76,047,425	35,793,648
All Other Countries	80,435,216	120,688,993
Total Canal Commercial Cargo	156,482,641	156,482,641

1/ Cargo not identified by region.

NOTE: The above statistics include 2,145,477 long tons of cargo moved between U.S. coasts.

Commodity Groups
FY 1985 - FY 1988
(long tons)

	FY 1988	FY 1987	FY 1986	FY 1985
Canned and Refrigerated Foods	4,867,124	4,209,699	3,829,984	3,660,558
Chemicals and Petroleum Chemicals	6,813,593	5,844,896	4,644,869	5,008,695
Coal and Coke (ex-petroleum coke)	8,575,848	7,922,123	10,206,208	11,482,008
Grains	35,865,209	32,368,451	2,938,107	23,511,820
Lumber and Products (including pulpwood)	9,533,369	8,709,668	6,919,050	6,226,386
Machinery and Equipment	2,655,984	2,927,343	2,907,632	2,378,683
Manufactures of Iron and Steel	6,843,052	6,972,074	6,700,380	7,816,873
Minerals, miscellaneous	5,121,083	5,111,744	4,825,126	4,419,341
Nitrates, Phosphates and Potash	12,137,220	12,002,681	9,947,115	11,860,470
Ores and Metals	10,333,817	8,980,917	9,789,562	9,732,801
Other Agricultural Commodities	5,419,339	4,859,632	4,742,013	4,976,493
Petroleum and Products	24,591,132	25,933,093	30,847,976	26,773,113
Miscellaneous	23,725,871	22,848,059	21,647,159	20,796,502
Total Commercial Cargo	156,482,641	148,690,380	139,945,181	138,643,743

NONDEPARTMENTAL WITNESSES

The following testimonies were received by the Subcommittee on Transportation and Related Agencies for inclusion in the record. The submitted materials relate to the Department of Transportation's fiscal year 1990 budget request.

The subcommittee requested that public witnesses provide written testimony because, given the Senate schedule and the number of subcommittee hearings with Department witnesses, there was not enough time to schedule hearings for nondepartmental witnesses.

NONDEPARTMENTAL WITNESSES

FEDERAL AVIATION ADMINISTRATION FUNDING

STATEMENT OF THE AIR TRAFFIC CONTROL ASSOCIATION, INC.,

Introduction

Mr. Chairman and Members of the Subcommittee, I am Suzette Matthews, General Counsel of the Air Traffic Control Association, Inc. ATCA is a professional association of thirty-years standing which has as its goal advancements in the science and profession of air traffic control and aviation safety. Its membership represents all facets of the air traffic control discipline, from air traffic controllers, flight service specialists, and airways facilities maintenance technicians who operate the Nation's air traffic control system, to those who develop and produce the technology which operates the system, to the citizens, government agencies, and airlines who use the system.

ATCA appears before you today to urge the Congress to support the Department of Transportation's Fiscal 1990 Budget Request for the Federal Aviation Administration (FAA), and to ask you to ensure that FAA has adequate funding in order to meet tomorrow's air traffic control challenges, as well as today's immediate needs.

Funding for FAA Operations

The Administration is requesting $3.923 billion for FAA Operations in FY 90 -- a 12% increase over the FY 89 enacted level. This increase will support 675 additional air traffic controllers, 400 aviation inspectors and support personnel, and 120 civil aviation security personnel. ATCA supports these increases, both in funding and personnel, and urges the Congress to appropriate the full amounts requested.

We are expecting spiraling demands upon our Nation's air transport system. FAA projects that between 1989 and the year

2000, operations at ATC towered airports will increase from 62.7 to 80.2 million, or 28%. During the same period, traffic handled by ATC centers is projected to increase from 37.2 million to 47.8 million, or 28.5%. Similarly, flight services rendered are forecast to increase from 44 million in 1989 to 48.2 million in 2000, an increase of 9.5%. [See, "FAA Aviation Forecasts, Fiscal Year 1989-2000, "Report FAA-APO 89-1, March 1989, pp. 206-211.] Moreover, the Administration's increased emphasis upon illegal drug interdiction, and the necessity for stepped-up surveillance against the threat of international terrorism are imposing substantial additional demands upon FAA resources.

If the Nation's air transportation system is to keep pace with the demands of tomorrow's economy, FAA must have the funding necessary to hire and train the people it needs to supply the ATC and other services required by an expanding aviation marketplace. It is time to abandon the misguided notion that FAA "can do more with less," and to recognize that FAA cannot continue to provide the same high quality services in an expanding market with diminished resources.

The increased funding requested in FY 90 also will support the OPM-approved 20% incentive pay demonstration, designed to attract air traffic controllers, maintenance technicians, and aviation inspectors to hard-to-staff facilities. ATCA supports this program, and urges Congress to appropriate amounts necessary to fund it. The Association believes, however, that pay incentives should be part of a comprehensive reform of the personnel structure of FAA which would give the agency flexibility to set wages and salaries for positions at various facilities with regard to local cost-of-living and other factors which affect recruitment. ATCA is especially concerned that inflexibilities inherent in the existing federal compensation structure makes it impossible for FAA to attract qualified scientists and engineers who are more highly paid in the private sector. ATCA endorses draft legislation which would increase

FAA's flexibility in this area, prepared by the Coalition of National Aviation Associations (of which ATCA is a member), and presented last term to the Aviation Subcommittees of both Houses of Congress, in connection with hearings on "Independent FAA."

The Administration has requested 199 additional positions and $53.9 million in FY 90 for comprehensive improvements to its personnel recruitment and training systems, including air traffic controller selection, curriculum, and teaching method. ATCA congratulates FAA on this effort, and urges Congress to appropriate the full amount requested for this necessary activity. The programs covered by this line item are not only necessary in order to accommodate the large influx of controller/inspector/technician trainees being accepted, but also represent an opportunity for strategic application of new screening and teaching technologies (eg. simulation and computer based instruction) to FAA's training curriculum. ATCA hopes that FAA will invite colleges and universities, and private training companies to contribute their special expertise and capabilities to this effort.

ATCA supports the Administration's request for 80 additional positions for NAS logistics support. With over one half of NAS Plan projects now in the implementation stage, FAA faces the formidable challenge of installing and integrating new systems, while maintaining and operating the old. ATCA urges Congress to appropriate the full amount requested, so that FAA can accommodate this additional workload.

The Administration's budget request includes 56 additional Flight Service Station ("FSS") positions to support the Federal Drug Interdiction Program. ATCA supports funding for this request. FAA's flight service workforce is now midway through the challenge of FSS modernization and facility consolidation. Additional personnel are required so that FAA's FSS workforce can give the Drug Interdiction Program the conscientious and high quality support that such a vital effort warrants.

ATCA also supports the Administration's request for $4.4 million for 20-25 additional low activity Level I contract VFR towers, and $5 million for a pilot test of contractor ATC maintenance. The contract tower program uses the economies of private enterprise to bring air traffic control facilities to areas which otherwise would not receive that service. ATCA suggests that a limited scale pilot test is an effective way of determining whether private enterprise would bring improvements and/or economies to ATC maintenance as well.

ATCA supports the 40 additional positions requested for administering FAA's airports program. These individuals would assist with the increased workload associated with new airport construction at Denver and Dallas/Fort Worth, as well as ongoing airport capacity enhancement programs. At a time when airport congestion rapidly is becoming the limiting factor in our national air transport system, we can ill afford to lag behind airport sponsors and state and local governments in maintaining the pace of airport capacity improvements.

Funding for FAA Facilities and Equipment

Today FAA is midway through completion of the National Airspace System Plan ("NAS Plan"), a comprehensive capital investment program to replace and modernize the Nation's air traffic control system.

There is no question that the NAS Plan is needed. Commercial and general aviation traffic grows daily, and exponentially. Delays plague our air traffic control system, particularly at peak hours at our busiest airports and in bad weather. Our controller workforce is performing a more and more taxing job with an aging, overworked, largely manual system which is more and more expensive to maintain, and will not meet the demands of tomorrow's air transportation marketplace. There is no alternative to modernization. We need to get on with

completion of critical improvements with the greatest possible speed.

The Administration has requested $1.955 billion for FAA Facilities and Equipment in Fiscal Year 1990. Of this amount, approximately $1.4 billion is slated for NAS Plan programs and projects. ATCA strenuously urges Congress to fund this request in its entirety. In keeping with the Nation's effort to reduce the Federal budget deficit, FAA has in recent years operated in an atmosphere of fiscal austerity. The agency has attempted to keep NAS Plan improvements on schedule despite funding shortfalls by taking some projects off full-funding 1/, reprogramming funds from technically immature projects to other projects more ready to proceed, and prioritizing program needs. Although this approach was successful during the early, largely developmental stages of the NAS Plan, funding flexibility has evaporated now that FAA has reached implementation on a majority (55%) of major projects. Funding shortfalls FAA now experiences in its Facilities and Equipment account are translating directly into project delays.

Moreover, although a significant portion of the NAS Plan work and funding already is behind us, by the end of FY 90 a substantial "bow wave" (approximately $2.5 billion) of deferred funding requirements 2/ will have accumulated which must be incorporated into NAS Plan appropriations in future years. This backlog of unfunded needs, added to substantial future NASP funding requirements, is generating a future NASP payment schedule which the Nation will be hard pressed to meet. For example, even including the Administration's FY 90 request, less than $1 billion, or 22% of the $4.3 billion projected cost of the

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1/ Today over 80% of NAS Plan work is not full-funded.

2/ Even assuming enactment of the Administration's significantly increased Facilities and Equipment request for FY 90, during the years 1982-1990 appropriated F&E funds ($9.11 billion) will have lagged behind authorized levels ($11.625 billion) by $2.5 billion.

Advanced Automation System will have been funded by the end of FY 90. Including the Administration's FY 90 request, less than $250 million, or 38% of the projected $637 million cost of the Voice Switching and Control System ("VSCS") will have been funded by the end of FY 90. And as a final example, including the Administration's FY 90 request, less than $150 million, or 13% of the projected $1.112 billion cost of the Microwave Landing System ("MLS") will have been funded by the end of 90.

In addition to the rapidly mounting backlog and future funding requirements associated with the NAS Plan, FAA also day by day is identifying additional capital improvements needed in order to equip our Nation's air transportation system for tomorrow's needs (the "blue page" portion of FAA's 1988 revised NAS Plan). These additional projects, for which approximately $550 million in F&E funding is requested in FY 90, include facilities and equipment support for the proposed new Denver Airport and Dallas/Fort Worth Airport expansion, interim consolidation of Los Angeles area TRACONS, and the Interim Support Plan. ATCA congratulates FAA on the vision which identified these new projects, and supports the agency's flexibility and willingness to recognize and address opportunities and needs not anticipated in 1982, when the NAS Plan first was formulated. 3/ ATCA urges Congress to approve

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3/ The total cost of additional capital needs now being identified is estimated to be approximately $10 billion over and above the $15.8 cost of the NAS Plan. ATCA firmly believes that FAA should be encouraged continually to identify and meet new aviation challenges, and to explore the potential of new and ever changing technologies. Therefore, ATCA takes issue with those who have characterized the estimated costs of newly identified NAS capital improvements as "growth in the NAS Plan." The original 1982 NAS Plan was an innovative and far-sighted plan for applying state-of-the-art, custom-made technologies to a working air traffic control system. Characterizing new capital requirements as "growth in the NAS Plan" unfairly overstates costs of the 1982 Plan vis-a-vis its undeniable benefits. The effect of the characterization may well be to discourage FAA from being forthright and innovative about meeting future needs -- a result which ATCA submits would be truly tragic.

funding for these new initiatives, and to support these new programs with the same bipartisan commitment which has characterized Congressional support for NAS Plan modernization.

Research, Engineering and Development

The Administration has requested $165 million for FAA Research, Engineering and Development ("RE&D") in FY 90. This request is $81.53 million less than the amount authorized in the Aviation Safety Research Act of 1988 (Pub. L. 100-591). ATCA urges Congress to appropriate the full $246.53 million authorized amount.

The need for new and improved aviation technologies has never been greater. With air traffic rapidly outstripping the capabilities of today's air transportation system, we must continually develop and exploit innovative concepts and advanced technologies in order to meet tomorrow's aviation challenges.

FAA must accelerate the development of R&D products so that the agency will be in a position to meet near term NAS demands for improvements in safety, airport capacity, management of airport and human resources, airport security, and aircraft efficiency. In addition to near term projects, FAA must develop a long range view of the intended evolution of the NAS as a basis for R&D and F&E planning. FAA should be able to demonstrate this view in order to obtain agreement from NAS operators and users, and to encourage compatible development in aircraft, aircraft systems, and airports.

Near term research projects should emphasize the development of procedures, technology, and automation such as: aging aircraft inspection/airworthiness technology, emphasized detection and other security technologies, toxicology, radar and automation technologies to reduce runway incursions and extend the use of multiple approach streams in instrument conditions, thereby enhancing airport capacity and reducing delays. FAA is well underway with a $25 million per year array of R&D projects designed to enhance capacity and reduce delay. ATCA agrees whole heartedly with the recommendation of the Industry Task Force on Airport Capacity Improvement and Delay Reduction that a

minimum of $42.6 million should be appropriated in FY 90 specifically for research and operations analysis directed toward technologies to improve airport capacity and reduce delay.

FAA also must be encouraged to provide the necessary procedures and resources to expedite the transition from R&D to implementation. Current FAA Technical Center resources are consumed by implementation of the NAS Plan, and research activities are receiving lower priority. An appropriate mechanism needs to be developed and funded to provide a fast track to field testing and implementation of successful research. FAA must continue apace with ongoing engineering and development of advanced technologies such as data link, advanced traffic management, Automated En Route Air traffic Control Phase 3 ("AREA 3"), automated dependent surveillance, terminal automation, and surface automation. While most of these research ideas will be integrated into the Advanced Automation System, some can provide a near term system improvements before integration into the AAS.

All of these ongoing R&D programs, many of which are mandated by the Aviation Safety Research Act of 1988, Pub. L 100-591, are necessary, and worthy of our dollars as well as our approval. However, judging by past problems in bringing research to fruition, FAA must be enpowered with adequate and appropriate resources, human and financial, to meet the challenges facing aviation.

As in the case of operations, FAA cannot reasonably be expected to "do more with less." Overall, ATCA urges Congress to appropriate the full authorized amount of $246.53 million in FY 90 for FAA Research, Engineering, and Development.

Airports

The Administration has requested $1.35 billion in obligations for Grants-in-Aid for Airports in FY 90. This request is $350 million less than the authorized level. ATCA urges Congress to appropriate the full $1.7 billion authorized.

While progress is well underway in modernizing and automating our Nation's air traffic control system to meet tomorrow's traffic demands, airport congestion promises to be tomorrow's capacity crisis. The National Council on Public Works Improvements has recommended that capital spending on the Nation's air transport infrastructure,

including airports, be increased by 100% over current levels. With $24.3 billion in AIP-eligible projects already identified in the National Plan of Integrated Airport Systems ("NPIAS"), it is clear that the pace of improvement in our Nation's system of airports could, and should, be accelerated significantly. The new Denver Airport alone has requested approximately $500 million in discretionary AIP funding over the next five years.

As in the case of FAA Facilities and Equipment funding, we are falling farther and farther behind in financial support for our Nation's airport infrastructure. Since the most recent reauthorization of our national airports program in late 1987, appropriations for Grants-In-Aid for Airports have lagged cumulatively behind authorizations by nearly $750 million. In order for the benefits of NAS Plan improvements to be realized fully, functional groundside capacity must keep pace with the growing capacity of our ATC system to accommodate more aircraft.

Finally, although ATCA agrees with the Administration that at least $250 million in "discretionary" funding for capacity improvement is a bare minimum required in FY 90, the Association submits that this level should be achieved through an increase in the total AIP appropriations, rather than a possible pro rata reduction in apportionment funds, a large portion of which already are being spent on capacity enhancing projects.

Conclusion

In conclusion, while supporting the goal of Federal deficit reduction, ATCA urges Congress to continue to make sufficient funding for FAA Operations and the NAS Plan a special National Priority.

More and more, the public is selecting air transport as its preferred means of travel. Americans are concerned about safety and efficiency in air transportation; they support Federal programs designed to improve our air transport system; and we believe they want user fees and taxes spent today for those purposes.

Thank you for the opportunity to express these views.

STATEMENT OF THE AIR TRANSPORTATION ASSOCIATION OF AMERICA

FISCAL YEAR 1990 BUDGET REQUEST FOR THE FEDERAL AVIATION ADMINISTRATION

The Air Transport Association of America (ATA), on behalf of the nation's scheduled air carriers, is pleased to address the Federal Aviation Administration's (FAA) Fiscal Year 1990 budget request and to seek the Subcommittee's support for actions that will assure a safe, efficient and constraint-free airport and airspace system.

Aviation industry representatives each year seek your support for critical improvements in the air transportation system. These improvements are critical because we face tremendous growth in this industry, but we still use an air traffic control system designed for use many years ago, when traffic levels were a fraction of those we see today.

The surging demand for air travel, stimulated by deregulation, has been accompanied by a growing economy. The true worth of the U.S. air transportation system is measured in hundreds of thousands of secondary jobs, businesses that would not even exist, services before unknown but now commonplace and untold opportunities to stay on the leading edge of world competition. The airline impact on our GNP is on the order of $237 billion. It is therefore in our collective interests to improve the efficiency and increase the capacity of our existing and future national air transportation system. The system is straining today, beset by unnecessary delays which are even further masked by increases air carriers have had to make in total times for their scheduled operations.

FIXING SYSTEM INEFFICIENCIES

Our first priority in dealing with increasing capacity and efficiency this year is the improvement of terminal airspace capacity. These terminal control areas, encompassing a forty mile radius around every air carrier airport in the country, are the focal point of congestion. Hundreds of daily flights are handled by an inadequate number of fully qualified controllers using outdated ATC equipment being maintained by a maintenance technician staff burdened by a shortage of personnel. These areas are the chokepoint of the national air transportation system. If we are to deal with the burgeoning delay problems of today, we cannot wait for tomorrow's solutions to fix the problem.

The budget request includes two solutions to the automation equipment side of this terminal airspace capacity problem. The long range solution is the Advanced Automation System (AAS). Now that the production contract has been awarded, we believe that the FAA, with the help of Congress, must find ways to expedite completion of that program. But even an expedited program will not provide relief until the end of this century. The short term solution is the Interim Support Plan, which will provide new and more reliable equipment to transition from the existing terminal automation system to the AAS.

Interim Support Plan

Today's acquisition process is completely out of step with the need to bring new computer technology on board and the pressing need to keep older technology equipment operating reliably. Like most modern American businesses, we must therefore be willing to buy what is available on a timely basis and use it, if only for a few years, until the new technology is operational. However, we believe that in developing and implementing the Interim Support Plan, it is imperative that FAA do so in a manner complementary to the AAS and the forthcoming Terminal Advanced Automation System (TAAS).

In addition to the enhancement of the existing terminal automation systems (known as ARTS), the interim support plan provides additional terminal radar equipment, replacement of obsolete instrument landing systems, and other enhancements to upgrade the aging terminal airspace communication, navigation and surveillance equipment. The importance of replacing this equipment has been further highlighted by the System Safety and Efficiency Reviews (SSER), the first of which was completed in Chicago last August.

Staffing

Adequate levels and quality of staffing at each facility in the air traffic control system is fundamental to dealing with the capacity problem. Modern equipment is only as good as the people who operate and maintain it. This committee has been extremely helpful in supporting additional levels of staffing for the ATC workforce, use of rehired annuitants to augment staffing shortfalls, and for simulators to speed the training of new controllers. We continue to support these requests including an additional 695 air traffic controllers in this year's budget.

There are two vexing staffing issues where we particularly seek support this year. The first is the need to rectify the situation at the historically hard-to-staff locations at Chicago, New York, Los Angeles, and Oakland. A number of solutions have been tried previously without success. We believe the Pay Demonstration Program for controllers and maintenance technicians is clearly the kind of incentive that is needed. We know on the basis of this program, people who would have otherwise retired are staying on, and that people are actively bidding to go to Chicago. This indicates to us that the need for this program clearly exists. We also know, however, that this kind of program must truly be an incentive for specific locations with stringent criteria, lest it proliferate and only serve to ratchet up wages across the board. We do believe that some locations other than already identified must ultimately be brought into the program, but should be done on the basis of criteria considering workload, complexity of airspace, and cost of living.

The second serious staffing problem has to do with the critical shortage of maintenance technicians. Due to delays in the implementation of new NAS Plan equipment, FAA is operating older and less reliable equipment longer than anticipated. Because FAA has already begun reduction of the maintenance technician

staff in anticipation of manpower savings due to modernization, they must continue to operate and maintain aging equipment with less manpower, while this same workforce is preparing and installing new equipment.

There is another issue related to the maintenance technician shortage: 55 percent of the maintenance technicians will be eligible to retire by 1992. This problem may well be aggravated by the much-discussed proposal to eliminate the "lump sum" provision for future retirees. One-for-one replacement of maintenance technicians is not practical: In order for FAA to train a new maintenance technician to replace a fully certified technician, 97 weeks of uninterrupted training is needed. This is to assure that these new technicians are fully qualified to declare the operational acceptability of all essential equipment at complex facilities. Additional training for all maintenance technicians will be required as new NAS Plan equipment becomes available for installation and operation.

ATA recommends that provisions similar to the rehired annuitant program for controllers be extended to maintenance technicians. The System Safety and Efficiency Reviews have identified this remedy as an option in addressing FAA's immediate needs for retaining fully qualified maintenance personnel.

AIRPORTS

The concern for "terminal" chokepoints is really one involving both airspace and airports. To correct this situation, airport improvements such as new runways and taxiways, installation of instrument landing systems, and the like are needed to accommodate the ever-increasing number of flights and passengers. ATA has identified over 920 AIP and F&E projects (more than 380 of them classified as high priority) that would greatly enhance the airport situation we face today. Similarly, the FAA's Capacity Enhancement Program Office has identified many projects at 13 major airports, including new runways, new procedures, new systems and equipment, and other improvements, many of which coincide with our priority list. Our list has been submitted to the Subcommittee as an enclosure with this statement.

Many people, including former Transportation Secretary Burnley, have criticized the airlines for "talking out of both sides of our mouths" for supporting airport capacity improvements but opposing the construction schedule for the new Denver airport.

The airlines do see a critical need for additional airport capacity. The test for determining the feasibility of a new airport can be broken down into four major elements, and each of these elements must be agreed to by both the airport sponsor and the prime users if a successful outcome is to occur.

First, there must be agreement as to the need for the new facility. Assuming agreement on need, the second issue which must be addressed is affordability. Agreement on these two elements must lead to a detailed financial plan. Finally, agreement must be reached as to the timing for bringing the new facility on line to meet the needs of the travelling and shipping public. None of these elements are in place for the proposed new Denver airport.

We know that Denver, and in turn the national air transportation system, suffers from delay problems during certain weather conditions, and we would support alternatives to improve the existing Stapleton runway configuration, such as building the once-planned runway on the Southernmost tier of the Rocky Mountain Arsenal. However, spending a minimum of $1.7 billion dollars on the first phase of a new facility in Denver at this time is a questionable expense. An equivalent amount of expense, directly related to this project, is unaccounted for in the City's budget figures. Stapleton's current debt of $450 million does not appear in the budget. That debt must either be relieved or carried over to the new airport's budget. The existing support facilities (such as maintenance hangars, flight kitchens, ticket counters, and baggage handling devices) at Stapleton cannot simply be lifted from the current airport and set down upon the new airport, thus another $450 million must be added on to the total price tag. One airline's analysis estimates at least $300 million in underestimated construction costs, and $286 million in land acquisition bond debt, must also be added to the $1.7 billion price tag.

Suddenly, this new airport, with the same number of gates and runways as the existing airport, and that we view as unnecessary in the face of steadily declining passenger levels and operations at the existing facility, costs over $3 billion. Moreover, the percentage of connecting passengers is getting larger each year. These travellers go through Denver on a discretionary basis; they could just as easily go through Dallas/Fort Worth, Houston, Minneapolis, St. Louis, Kansas City, Chicago, or a half-dozen other hub cities to reach their ultimate destination if Denver becomes uncompetitively priced as a result of new airport costs. In fact, Denver's passenger traffic is down over 17% so far this year.

However, there are locations, such as Austin, Texas, where new airports are being pursued where they make sense. And the stimulus Congress has given the Department of Defense base closure activity deserves special applause. Unfortunately, a number of bases which could truly have helped the air transportation system, such as El Toro Marine Air Base and Miramar Naval Air Station, both in California, were not selected. Of those selected, many have potential as general aviation or reliever airports. Only one, specifically Pease Air Force Base, New Hampshire, may have serious potential as an air carrier facility.

SYSTEM SAFETY AND EFFICIENCY REVIEWS

ATA has been particularly attracted to the recently initiated concept of FAA System Safety and Efficiency Reviews and has supported these efforts heavily with our own staff and the staffs of our member airlines. We believe these reviews are the most effective method we have seen thus far at FAA for identifying the problems and solutions of terminal airspace and airport equipment, procedures, and staffing related to capacity and safety needs.

These reviews are beneficial for all involved, in that system users participate, and communication between the FAA and system users is improved at operational levels. From these reviews, FAA staff develops recommendations to improve equipment, procedures and airspace utilization, which are reported directly to the FAA Administrator.

Benefits from immediate improvements where reviews have been completed are already being realized. However, to date urgent funding requirements have been accommodated only through reprogramming actions, and a number of timely improvements have been deferred. For example, the Chicago review generated more than $20 million in high-priority reprogramming requirements for a study on the relocation of the Chicago TRACON away from the control tower, construction of a modern tower cab facility and new Center administrative facilities, among other items. We hope you recognize the value of these reviews and will assist the FAA in expediting reprogramming requests.

AVIATION SECURITY

Turning from capacity issues to another top priority, the threat we face in aviation security today is far different from what it was when we first began screening passengers and carry-on baggage in the early seventies. Then, hijacking was the primary threat; now we face sabotage by international terrorists using commercial aviation to make their point against governments with whom they disagree.

Meeting this new and more dangerous threat both warrants and requires greater government involvement in airline security. Government must go beyond its traditional regulatory role and become an active partner of the airlines in security. ATA has advanced four specific proposals for increased government participation and assistance in improving airline security.

First, we suggested that the FAA should deploy more of its own resources, in the form of security inspectors and federal air marshals, in areas where the threat is greatest. The budget proposal to add inspectors is welcomed, but FAA must assign more of these security experts to ground duties in support of airline security activities at high risk locations overseas -- specifically at the 45 high-threat airports in Europe, the Middle East and the Far East where FAA has imposed extraordinary security measures for U.S. airlines. We believe this should occur immediately, and should be in sufficient numbers to provide U.S. carriers the full range of hands-on assistance needed.

Second, we urged the government to speed up the development and availability of emerging technologies that detect hidden explosives. Vapor detection techniques show great promise and Thermal Neutron Analysis devices have tested favorably. FAA has as many as six TNA machines on order. Secretary Skinner's April 3 announcement advised that U.S. airlines will be required to install as many as 100 explosive detection systems, such as TNA units, at major U.S. and foreign airports as soon as they are available. These are the first approved explosive detection techniques to emerge from a 15-year program, and are a good first step. The equipment should be installed on a priority basis at high-threat foreign airports where the threat is greatest. Fortunately, today's threat does not require their installation at U.S. airports, in our opinion.

Third, we recommended that the United States accelerate efforts to strengthen, through ICAO, agreements on airport and airline security. While ICAO has made considerable progress toward that end in recent years, more needs to be done. ICAO should lay out tougher security standards for all nations and should be given the added authority needed to evaluate security programs around the world and to impose sanctions against nations that fail to live up to established standards.

Fourth, to help ensure that all American travellers receive the protection they deserve, we recommended that foreign carriers serving the U.S. from the same high-threat airports be subjected to the same security requirements that the U.S. carriers must meet. The fact that foreign carriers do not operate under the same security rules is, we think, an obvious gap in FAA's security program, especially when it is recognized that some 50 percent of U.S. citizens who travel abroad use foreign airlines.

These recommendations have a common thread: they recognize that acts of international terrorism are intended to influence the policies and behavior of governments -- with commercial aviation being an attractive and vulnerable surrogate target -- and they call on the Federal government to take a greater role in airline security. We support these steps as minimum requirements for FAA aid in protecting air travellers against the scourge of terrorism in the immediate years ahead.

Security Funding

We support the request for additional aviation security inspectors and air marshals, provided they are assigned to active duty at critical airports overseas.

ATA's preliminary estimate of the current explosives detection equipment requirements is that 66 TNA devices and 171 vapor detectors are needed to fill the security needs of the eight U.S. airlines that serve the 45 high-threat foreign airports. Costs are estimated at $49.5 million for the TNA units and $17.1 million for the vapor detectors, for a total preliminary cost estimate of $66.6 million.

We believe that Federal funding for this equipment is justified and warranted. It will be consistent with the Government's obligation to maintain public safety and protect its citizens from criminal attacks, especially when those attacks are committed by international terrorists whose real targets are U.S. government institutions and policies. This is not an unprecedented approach; the government provided funds in the early seventies to deploy metal detectors at U.S. airports to meet the hijacking threat of that era. Financial assistance now is even more appropriate and urgently needed to meet today's far more dangerous threat of terrorism. We recommend an F&E appropriation of $66.6 million to make funds available to FAA for this exclusive purpose.

FAA has requested $9.1 million for aviation security RE&D. An additional $9.6 million could accelerate by nearly two years the implementation of new explosives detection technologies. ATA urges this Subcommittee to appropriate the funds to expedite this effort, including the appropriation of the additional $9.6 million, for a total security RE&D appropriation of $18.7 million. We are suffering the effects today of "disaster related" emphasis in security RE&D. It has ebbed and flowed with the threat. We must maintain a steadily funded, proactive security RE&D program.

OTHER FUNDING REQUIREMENTS

Notwithstanding a 17% increase, we believe the FAA budget request is only marginally sufficient and fails to provide funding for a number of long-standing opportunities to improve capacity.

Two Trust Fund issues in particular deserve note at the outset. The Administration has come forth with two controversial proposals in the FY 1990 budget request that are inconsistent with Congressional intent, and which we oppose. First, the Administration proposes a waiver from current law to permit FAA to exceed the amount of Trust Fund expenditures allowed for Operations. This waiver should not be permitted.

Secondly, the Administration's budget proposes to repeal the tax trigger. This provision, adopted by Congress in 1987 in Public Law 100-223, was designed to assure a balance would be maintained in Aviation Trust Fund receipts and disbursements. Appropriations during FY 1988-89 for FAA capital programs have not reached the level prescribed by Congress in current law, and the transportation taxes will be reduced by half beginning January 1, 1990. We believe the proposal to repeal the "Trigger" should be rejected, since the necessary program expenditures for airport and airway modernization have not been achieved.

Fiscal Year 1989 Supplemental

The Administration requested an FY 1989 operating supplemental of $40.7 million. ATA fully supports the Administration's FY 1989 supplemental appropriation request. Moreover, we support the OPM-approved Pay Demonstration Program. We believe this is a very important initiative, and the $7 million requested should be approved.

Facilities and Equipment

The F&E budget request for Fiscal Year 1990 is $1.955 billion, $235 million less than authorized. Once again, the Administration has not asked for the Congressionally-approved funding levels. If FAA is provided its full F&E request this year, that account will still have been underfunded by over a half billion dollars during the last two fiscal years, at a time when the demand for F&E dollars is increasing dramatically.

While this year's F&E budget request appears large compared to past appropriations, it seems apparent that the consequences of previous funding shortfalls amounting to more than $2.5 billion since Fiscal Year 1982 -- albeit for a variety of reasons -- can no longer be avoided. These large requests should be no surprise. In previous testimony before this Subcommittee, ATA, the FAA and others predicted the "ballooning" of F&E requests; now GAO has indicated an F&E need in the range of $4.0 billion in Fiscal Year 1991.

There is little room to adjust for funding shortages in the F&E account until the essential elements of the NAS Plan are in place. We believe expenditures for F&E at the $2.191 billion level are necessary, but we recognize that current budget constraints may make that unachievable. ATA fully supports the total F&E funding request for $1.955 billion, with one caveat. As I explained earlier, we challenge the validity of the need for the new Denver airport. Questions remain about this new facility and we believe the proposed F&E expenditures are premature. ATA suggests that these funds could be better utilized to address more urgent NAS system improvements.

Our recommendations for reallocating the $102 million are appended to my statement as Attachment A. One important recommendation is in conjunction with a project that could provide significant capacity gains. An expenditure of $16 million should be appropriated for use in the production of the quick-scan airport surveillance system that is in the final testing stages at Raleigh-Durham. This Subcommittee has been most helpful in recent years in advancing this important project. These funds will provide the start for a $50 million program to install ten systems around the country. Capacity gains could be realized by allowing improved simultaneous IFR parallel and converging runway operations. It is vital that FAA begins development of the specifications and RFP for these systems, because testing will be complete soon. We urge that you direct FAA to purchase this equipment as soon as the Raleigh-Durham system becomes operational.

Turning now to other F&E priorities, the Interim Support Plan is a development that occurred partially as a result of the inability to ask for, and obtain, necessary F&E appropriations. Conceding FAA management difficulties with the NAS Plan implementation schedule, there is no question a massive shortfall has dramatically increased the cost and delayed promised benefits of the NAS modernization program. The interim sector suite subsystem of the AAS has been delayed by at least three years. Aging computers and other vital pieces of the major terminal airspace systems will be around much longer than anticipated. FAA must assure that the aging terminal airspace equipment survives until the delivery of new technology equipment. FAA has asked for $110 million for the interim plan for Fiscal Year 1990, which ATA considers vital to maintain the support facilities for the nation's air transportation "hubs". We fully support the requested budget for this item.

At $184 million, the Voice Switching and Control System (VSCS) is the second largest line item in the F&E request next to the $367 million AAS support. Without VSCS, FAA will be unable to provide controllers with operational sector suites for the AAS. Last year, this Subcommittee wisely recognized the importance of funding and supporting the production contract award for the AAS. The VSCS contract is equally important to the modernization program and requires full support to assure the timely contract award and implementation. This little publicized element of the NAS Plan is really the spinal column for both the AAS and terminal automation.

FAA is requesting $109.5 million for the System Engineering and Integration support Contract (SEIC). ATA has been a strong advocate of this support, because of the magnitude of the modernization program and FAA's inexperience in dealing with programs of this size. We are concerned, however, that there has been a proliferation of support contracts that could complicate FAA's ability to accomplish the NAS Plan objectives. We believe all support should remain under the SEIC, and support the $109.5 million to maintain this contract.

FAA has requested $30 million to conduct a series of operational assessments to resolve uncertainties concerning future implementation of the MLS as a replacement for ILS. ATA member airlines have not been supportive of FAA's plan to transition from ILS to MLS. However, the airlines have agreed to work cooperatively with FAA to complete the operational assessment projects by the end of 1991 and to reach a final conclusion on the need for full-scale transition to MLS. Therefore, we support FAA's request for $30 million for these projects.

Airport Improvement Program

Despite our expressed concerns about the new Denver airport, there is much airport work that is fully supported by the airlines. Yet these improvements can be made only if the Fiscal Year 1990 AIP program is funded at $1.7 billion. Needed runways are going unbuilt; multi-million dollar security access control systems, mandated by the Federal Government, are left unfunded; and other safety enhancements are being left undone. As we did last year, we again call on you to provide not only the requested amount of $1.35 billion, but the additional $350 million dollars that the Administration did not see fit to include in the budget.

Research, Engineering and Development

The R,E&D budget request of $165 million is 33% less than the Fiscal Year 1990 Congressionally-approved funding level of $246.5 million. ATA believes that there are priority RE&D areas where additional funding this year could result in much needed capabilities being brought on-line sooner. We recommend an increase in the RE&D budget of $31.6 million to fund our highest priority areas (including the $9.6 million previously mentioned for security RE&D):

Aviation Safety: We recommend a continuation of the operational evaluation of TCAS II in airline service, to be funded at $3 million. Included in this evaluation should be the analysis of ATC radar track data, voice communications recordings, and crew comments to resolve display, human factors, logic, TCAS and ATC interaction, or other technical issues.

Funding at level of $10.3 million should be provided to implement those recommendations of the Government/Industry Airworthiness Assurance Task Force related to the Aging Aircraft RE&D program, an increase of $5 million over the FAA request for this program. Funded activities would include methods for detecting and preventing corrosion, cracks and disbonds, fatigue life assessment, advanced, automated non-destructive inspection and human factors aspects of aircraft inspections.

While we have already commented on our recommendations for aviation security, I will reiterate that the completion of the development of effective and efficient thermal neutron analysis (TNA) sensors and accelerated development of vapor detection and other technologies for detecting explosives in the aviation environment is of utmost importance. We recommend an increase of $9.6 million to fund this acceleration.

The Airborne Windshear Detection program should increased be by $3 million, taking the program to a total of $4.1 million, which will accelerate the FAA/NASA/industry program for flight testing of promising airborne remote windshear detectors and cockpit displays for windshear avoidance, and develop timely flight crew information systems, using data link capability.

Finally under the Aviation Safety portion of the RE&D program, the Aircraft Icing Protection and Forecasting project should be increased by $2 million, to $2.5 million, to accelerate the current FAA/NASA program to include development of advanced deicing fluids for all aircraft categories and to examine the effects of such fluids on runway traction and expand the existing short-term inflight icing forecasts to the ground environment so that maintenance and flight crews can make timely decisions on the use of advanced fluids.

System Capacity: We believe the key to improving system capacity lies in developing more efficient operations in the terminal areas. This includes moving forward a number of promising airport capacity projects and automated terminal air traffic control. In addition, modeling and simulation tools to assist Central Flow Control decision-making and coordination with regional facilities and major users, need to be accelerated to enhance the national flow and management of air traffic, particularly as Aircraft Situation Displays and real time scheduling and weather data exchange becomes available.

Consistent with our desire to expedite the terminal automation phase of the AAS contract, we believe that increased funding in the terminal air traffic control automation program could expedite delivery of these terminal automation tools. While FAA is requesting $3.5 million for this program, an additional $1.5 million could expedite the results of FAA's planned simulator and field evaluation activities by more than a year.

FAA plans to implement data communication services in the terminal air traffic control environment to deliver printed clearances to flight crews without voice communications. The expedited development of ATC data communication services was identified during the System Safety and Efficiency Reviews. As traffic increases, voice communication channels at the busiest airports have become saturated, resulting in interference and decreased reliability in voice communications. Early implementation of improved data communications will alleviate this congestion and reduce controller workload. FAA has not asked for any funds to initiate this new program, however, we consider it essential to expediting terminal ATC system automation. FAA requires $4 million to develop the capability of implementation of terminal data link services. We urge you to appropriate the funds necessary to initiate this program.

Airport Capacity: Airport capacity improvements remain a high priority RE&D requirement, and the Congress has recognized the importance of this program. We urge you to appropriate the $25.1 million requested, and an additional $6.5 million to be apportioned as follows (synopses of these programs, and the ATA recommended funding levels for the entire Airport Capacity RE&D program, appear as ATTACHMENT B):

	Millions
Reduced Runway Occupancy Time	$ 1.5
Precision Runway Monitor	1.75
Simulation Model Development	.25
Wake Vortex	2.0
Airport Surface Traffic Automation	1.0
Total	$6.5

Human Factors: Fundamental to improving system safety and security is the need for human factors research. ATA, in collaboration with a number of government and industry organizations, has developed a "national" human factors plan which is serving as a basis for the FAA and NASA to establish a comprehensive human factors program. Between the two agencies, we understand, a total of $25 million has been requested and should be appropriated. FAA has requested $11.2 million of that total; ATA fully supports that request.

Operations and Maintenance

FAA is requesting $3.9 billion for Operations and Maintenance in their Fiscal Year 1990 budget, $500 million more than in Fiscal Year 1989. We believe the O&M account should be fully funded, since these funds are critical to providing necessary improvements in the existing staffing levels and existing NAS equipment.

Because of O&M funding deficiencies last year, FAA has been forced to ask for significant reprogramming. For example, $23 million was reprogrammed to accommodate the more important recommendations identified in the Chicago-area SSER. Another $27 million was reprogrammed from the Oklahoma City parts depot to accommodate the hiring of additional controllers, resulting in a shortage of spare parts and ancillary equipment. These examples illustrate FAA's constant juggling of its O&M budget to accommodate a variety of unpredictable, yet urgent, demands.

Turning to specific workforce demands, the FAA is attempting to increase its full performance level controller workforce by 695 by year-end. We believe that it is imperative that FAA get to that level, and we urge you to assist FAA in reaching that goal. Moreover, it is vital that steps be taken to increase the number of full performance level controllers through extensive use of simulation equipment to ease the burden caused by on-the-job training. As I previously stated, the $10 million rehired annuitant program is another initiative that must be continued if FAA is going to completely resolve the current shortage of operational air traffic controllers.

FAA is planning to change the way controllers do their jobs by improving the training system and providing new technologies and procedures. Part of the FY 1989 "Flight Plan for Training" initiative includes an FY 1990 requirement for $4.5 million to fund this training modernization program and to provide computer-driven simulation equipment for on-site training at 45 facilities. Until this program is off the ground, however, FAA must continue use of its site-specific radar training contract at a cost of $750,000 and increase the use of enroute training contractors by $1.2 million above the base amount of $20.7 million.

ATA also supports the FAA request for $729 million to satisfy its maintenance technician staffing and related personnel needs. Moreover, for reasons outlined on pages 2 and 3, the FAA is attempting to meet a year-end work force target of 8,900 field maintenance technicians, an increase of nearly 300. ATA supports this staffing increase request along with the other objectives we have identified.

Finally, in conjunction with the approval last year for funding of ILS equipment through the AIP program, the Appropriations Committee directed FAA to pay the O&M costs of these systems. FAA is not complying with this requirement, and we urge the Subcommittee to take whatever corrective action is necessary.

CONCLUDING STATEMENT

We have made numerous recommendations today. To summarize, ATA feels strongly about the following priorities:

- Capacity and efficiency must be improved in the terminal airspace and airport area. A combination of measures is required -- expediting the Advanced Automation System (AAS), implementing the Interim Support Plan, and pursuing capacity enhancement planning projects at existing airports.

- The air traffic control and maintenance technician workforce must be increased, and training for these personnel accelerated. The Pay Demonstration Program is a crucial incentive at hard-to-staff locations; moreover, in view of critical staffing shortages, the rehired annuitant program for air traffic controllers should be continued and similar provisions extended to the maintenance technician workforce.

- FAA System Safety and Efficiency Reviews are extremely useful, and FAA must be accorded more flexibility in funding urgent recommendations identified during these Reviews.

- Aviation security must be augmented with assignment of additional FAA personnel with direct, hands-on responsibilities, and expeditious deployment of high technology explosive detection equipment, overseas.

- In addition to adequate funding needed for the AAS program, the Voice Switching and Control System is crucial to AAS success. A strong System Engineering and Integration

function is essential to successful implementation of the complex, interrelated elements of the NAS Plan.

- o Even considering budget pressures and the increases to the FAA budget request, FAA funding is only marginally sufficient to meet pressing safety, capacity and security needs. Several projects in RE&D could be brought forward more rapidly to help today's problems with an accelerated funding schedule.

We realize we have not presented you with an easy task, but an efficient air transportation system, operating safely and securely, is a net plus to many of the fundamental needs of this great nation. We anticipate you will rise to the occasion as you have in the past, and we thank you. This concludes our statement for the record.

ATTACHMENT A

ATA RECOMMENDATIONS FOR REALLOCATION OF $102 MILLION IN F&E FUNDS

Quick Scan Airport Surveillance Equipment (10) @ $5 million each
($16 million in FY 1990, $50 million over three years)

Baltimore, MD	Minneapolis, MN
Detroit, MI	New York (JFK), NY
Jacksonville, FL	Portland, OR
Kansas City, MO	Salt Lake City, UT
Memphis, TN	St. Louis, MO

Other Navigational Aids

City, State	Equipment	Approx. Cost
Baltimore, MD	4 RVR's	$ 600,000
Boston, MA	2 Cat I ILS	2,000,000
Buffalo, NY	1 Cat I ILS	2,000,000
Chicago (MDW), IL	2 RVR's	300,000
Chicago (ORD), IL	4 Cat II/III ILS	16,000,000
Cincinnati, OH	5 RVR's	750,000
Cleveland, OH	1 Cat I ILS	1,000,000
Dallas (DFW), TX	1 RVR	150,000
Dayton, OH	1 Cat I ILS	1,000,000
Detroit, MI	1 ILS	1,000,000
	2 RVR's	300,000
Greensboro, NC	3 RVR's	450,000
Harrisburg, PA	2 RVR's	300,000
Huntsville, AL	1 Cat II ILS	4,000,000
	2 RVR's	300,000
Miami, FL	6 RVR's	900,000
	1 Cat II ILS	4,000,000
Minneapolis, MN	3 RVR's	450,000
Newark, NJ	1 Cat I ILS	1,000,000
Norfolk, VA	2 RVR's	300,000
Orlando, FL	1 Cat III ILS	4,000,000
Palm Beach, FL	1 Cat I ILS	1,000,000
	1 RVR	150,000
Philadelphia, PA	2 RVR's	300,000
Pittsburgh, PA	1 Cat I ILS	1,000,000
	2 RVR's	300,000
Portland, ME	1 Cat II ILS	4,000,000
Portland, OR	2 Cat I ILS	2,000,000
Raleigh-Durham, NC	3 Cat III ILS	12,000,000
Richmond, VA	1 Cat I ILS	1,000,000
Salt Lake City, UT	1 Cat I ILS	1,000,000
San Antonio, TX	1 RVR	150,000
Savannah, GA	1 Cat I ILS	1,000,000
	2 RVR's	300,000
Seattle, WA	2 Cat II ILS	1,000,000
	1 RVR	150,000
St. Louis, MO	1 Cat III ILS	4,000,000
Syracuse, NY	1 ILS	1,000,000
	2 RVR's	300,000
Tulsa, OK	3 RVR's	450,000
Washington (IAD), VA	7 RVR's	1,050,000
	2 Cat II ILS (upgrade)	8,000,000

Worcester, MA	1 Cat I ILS	1,000,000
	1 Cat II ILS	4,000,000
	1 RVR	150,000
TOTAL		$102,000,000

ATTACHMENT B

AIRPORT CAPACITY-RELATED RESEARCH ENGINEERING AND DEVELOPMENT

Project descriptions are provided for those projects where ATA is requesting an increase in funds over the FAA budget request.

Project Number	Project Title	Request
	Airport Systems	
1.	**Reduced Runway Occupancy Time**	$ 2,506,000

Airport capacity is partially dependent on the ability of aircraft to minimize time on runways. As runway occupancy time decreases, the acceptance rate of the runway increases. Design criteria will be developed for exit taxiway location and configuration.

The project includes design specifications, simulation of use by pilots and field construction and validation of exit taxiway designs.

2.	**Airport Pavement**	$ 2,080,000
3.	**Airport Safety Planning**	$ 663,000
4.	**Airport Safety Support System**	$ 666,000
5.	**Airport Surface Visual Control (Lighting)**	$ 1,149,000
	Airport Capacity	
6.	**Airport Capacity Enhancement Planning**	$ 1,447,000
7.	**Airport Capacity Task Force Studies**	$ 565,000
8.	**Capacity Development**	$ 2,984,000
9.	**Simulation Model Development and Validation**	$ 1,715,000

In past years, a computer model has been developed that enables airport planners to simulate air traffic in the terminal area and on the airport surface. This model has proved critical in identifying and evaluating airport capacity enhancement.

In FY 1990, an initial public release of the model will be available. Additional enhancements are planned by automating input file features that will make it easier and more efficient to use while reducing cost and improving quality control.

10. **Precision Runway Monitor - High Data Rate** $ 4,716,000

Aircraft separation standards are partly a function of the surveillance system capabilities. Air traffic controllers must be able to quickly identify needed course corrections and communicate to pilots accordingly. One such system test, at Raleigh-Durham, NC, will be complete late this year. Specifications should be completed for production unit installation.

The Raleigh-Durham system should be upgraded to a certifiable or waiverable condition in order to continue operational use until production units are available.

11.	**Terminal/Landside Traffic Modeling**	$ 350,000
12.	**Wake Vortex**	$ 2,570,000

The goal of this project is to investigate the impact of wake vortex surveillance on wake vortex forecasting. Improved wake surveillance and forecasting will allow for improved aircraft separation standards and aircraft acceptance rates at airports.

This project will allow downlinking of winds aloft information from aircraft on final approach to controller displays to assist in aircraft spacing for wake vortex procedures.

13. **Airport Surface Traffic Automation** $ 3,343,000

Work began in FY 1989 on the identification of alternative capabilities to reduce the frequency of runway incursions. In FY 1990, further, more in-depth work will be conducted as the basis for a phased development program.

The program will concentrate on providing automated guidance and separation on the airport surface with an initial focus on reducing runway/taxiway intrusion incidents.

14.	**Terminal ATC Automation**	$ 3,593,000
	System Capacity	
15.	**National Airspace System Performance Analysis Capability (NASPAC)**	$ 2,500,000
16.	**Airspace System Models**	$ 773,000
	TOTAL AIRPORT CAPACITY-RELATED RE&D	**$31,620,000**

AIRCRAFT OWNERS AND PILOTS ASSOCIATION

STATEMENT OF JOHN L. BAKER, PRESIDENT

Mr. Chairman, my name is John L. Baker, and I am President of the Aircraft Owners and Pilots Association. AOPA represents the interests of 285,000 individuals who own and fly general aviation aircraft to fulfill their personal and business transportation needs. We appreciate this opportunity to comment on the FAA's budget request.

OVERVIEW

Priorities. AOPA believes we have entered an era of opportunities, challenges, and priorities. Opportunities, because there may have been no time in our aviation history when public support for substantial action has been stronger than it is today. Challenges, because of the critical shortages in budget capacity. Priorities, because only by prioritizing and making the tough choices can we hope to have the necessary impact on America's air transportation system, given the fiscal constraints to which we must adhere.

Concern regarding huge deficits and limited resources is at a fever pitch--and appropriately so. Federal spending on the air transportation system should be sharply focused on the clear priorities of safety, capacity, and utility. There is no room for the "hobby" projects which have drained so many of taxpayers' dollars in the past. We encourage the Committee to review the FAA appropriations request line by line to ensure that the test of priorities is met.

Safety, capacity, and utility. These priorities should be the measure for every penny of FAA's request. And the FAA should be constantly reminded that the lowest priority of all is its own convenience as the trustee of the system.

The good news is that the Administration is seeking a substantial increase in FAA funding. We applaud the FAA for a total funding request of $7.393 billion, which is 16% greater than the FY89 appropriated amount and 29% above the FY88 total appropriation. We congratulate the Administration for exhibiting the courage necessary to seek an increase. While we do not agree with some of the specific programs and funding amounts sought by FAA, it seems clear that aviation funding is justifiably a priority for the Administration. We are encouraged.

The bad news in the budget request is that truckloads of that funding would continue to be squandered on programs yielding little if any benefit to the air travelling public--programs such as MLS. And most disturbing is the Administration's request for huge amounts from the Airport and Airway's Trust Fund to pay the full cost of operating the air traffic control system. The FAA is seeking $1.7 billion out of the Trust Fund for this purpose. That is nearly four times the amount appropriated last year, and we believe the request is completely unacceptable.

This particular request reflects a continuation of the outlandish philosophy advocated in the past-- that the air transportation system is without public benefit and should be entirely funded by the direct users. This philosophy ignores the enormous public benefit derived from a well-managed and well-maintained air transportation system.

All Americans benefit from air transportation. This is not a matter of "our" tax dollars versus "their" tax dollars--the "users" versus everybody else. It is a matter of specific tax dollars willingly paid by the users which are intended for the specific purpose of providing for the capital funding needs of the air transportation system.

To ignore the public benefit of aviation and suggest that the "users" should bear the full cost of operating the system is analogous to suggesting that there is no public benefit to publicly-funded education. No one would seriously propose that the parents of schoolchildren should be forced to pay the full cost of providing public education. Yet, that is the logical extension of the kind of philosophy underlying the Administration's request for full funding out of the Trust Fund.

The integrity of the Airport and Airway Trust Fund must be preserved. Using general revenues to fund the operation of our air transportation system is not cause for apology. It is appropriate. To do otherwise is to breach the commitment to the users and mock the "trust" in the Trust Fund.

National Aviation Policy. Many of the problems plaguing the air transportation system result directly from the lack of a well-articulated and meaningful National Aviation Policy to guide the evolution of America's air transportation system--the kind of policy for which a broad coalition of aviation, business, and community interests is now calling.

As we address the FAA's proposed budget we find ourselves reviewing and commenting on funding requests for specific programs and functions without having a broad, longterm national direction in place against which the value of these programs can be measured. We may be our own worst enemies, for it now appears clear that, as a group, the aviation commmunity has not been forceful enough in demanding strict accountability from the FAA and DOT.

The National Airspace System Plan is the perfect example. The NAS Plan is not a substitute for a comprehensive air transportation policy. Rather, the NAS Plan and its various components is perhaps the most obvious illustration of why we need a National Aviation Policy. While progress has been made on some aspects of the NAS Plan, the FAA continues to be the target of sharp criticism.

In recent Congressional testimony, Secretary Skinner characterized progress on the NAS Plan so far as more of a learning experience than a productive one. We welcome that kind of candid willingness to admit that mistakes have been made. And we hope the Secretary will accept the critical recommendations offered by the General Accounting Office in its most recent in a series of reports critical of the FAA's management of the NAS Plan.

In its November 1988 report entitled Continued Improvements Needed in FAA's Management of the NAS Plan, GAO recommended that the FAA revise the Plan:

1) by identifying all needed projects and their associated benefits, costs, and schedules so that relative priorities can be set on the basis of benefit-cost ratios, mission need, or safety considerations; and

2) by reflecting in project schedules and quantity requirements the results of other agencywide plans for

airspace changes, airport development, and human resource management.

We wholeheartedly endorse these recommendations and the GAO's comprehensive analysis of the problems associated with the NAS Plan.

While our testimony of necessity focuses predominantly on the NAS Plan and its components, our broad, national objective should be to ensure a safe, efficient, and convenient air transportation system. The NAS Plan, for all its good intentions, is worthwhile only to the extent that it is consistent with the broader objective. We must do a better job of defining that broader objective.

This Committee has consistently recognized the weaknesses in our national ability to plan, build, integrate, and operate our burgeoning transportation system. We appreciate the Committee's continuing committment to apply its leadership and common sense to our transportation problems. That leadership is an essential element if we are to develop a meaningful National Aviation Policy.

OUR ANALYSIS OF THE BUDGET REQUEST

Obviously, it is not possible to discuss here today each facet of our analysis of the FY90 budget request. We will focus on the major issues, and primarily on those areas where we have identified potential savings or additional funding needs. We have prepared a more detailed analysis containing a set of specific program level recommendations. This analysis is available to the Committee and its staff on request. The following comments outline our position and recommendations on the major priorities.

AIRPORTS

We are appalled that the FAA has once again failed to seek full funding for the Airport Improvement Program. FAA has requested $1.35 billion in contract authority, which is $450 million less than the authorized level of $1.7 billion. The demand for additional funds clearly exists, as we will demonstrate in these comments. There can be no excuse for failing to seek full funding.

In addition, about one-half of the requested AIP funding will be distributed to airports based on enplanements. This leads us to question whether the existing AIP distribution formula enables the FAA to adequately target the nation's most pressing airport requirements.

We recognize that it is not necessarily within the jurisdiction of the Appropriations Committee to evaluate the adequacy of the AIP formula. Yet, we are compelled to offer a suggestion which we hope will be considered at an appropriate time in the reauthorization process by the members of the House and Senate authorizing Committees and by the members of this Committee, as well.

We propose that the enplanement formula should be given far less weight in favor of an overall approach which ensures that AIP dollars are distributed according to priority of national need. We suggest the following priorities represent an appropriate expenditure of AIP funds to address our most urgent airport needs:

Priority #1 - Primary, reliever, and general aviation airports in metropolitan areas which are already experiencing significant capacity or delay problems.

Priority #2 - Airports which are essential in order to ensure regional access to the air transportation system, and primary, reliever, and general aviation airports in metropolitan areas which are forecast to experience significant congestion or delay problems in the immediate future.

Priority #3 - Airports of all categories which are deteriorating and in need of repair or in need of safety, capacity, or utility enhancements.

Using this prioritized approach, AOPA analyzed pending AIP grant applications-- some dating back as far as 1980. We found that a total of 2,207 project applications are pending, amounting to $7.2 billion in requests. Of these, by the way, 1,372 are pending applications worth $1.6 billion for projects at reliever and general aviation airports in major metropolitan areas.

Based upon our analysis, we estimate that approximately 750 of these 2,207 total pending applications can be legitimately classified as among the nation's most critical airport capacity or infrastructure requirements. These 750 projects are worth an estimated $2.4 billion. This large amount in backlogged priority needs illustrates our point that allocating half of the available AIP dollars on the basis of enplanements is not the best way to ensure that our most critical airport needs are met.

For example, the targeted application of $800 million in AIP funds during each of the next three years would satisfy these priority needs. It is well known that a current unobligated surplus in excess of $6 billion has accumulated in the Trust Fund. Some of those funds should be used more effectively now to begin satisfying critical airport needs nationwide. These dollars are required to fund the billions in backlogged, prioritized grant applications already pending at the FAA.

For these reasons, we suggest that the Committee consider a maximum AIP appropriation, with $800 million specifically targeted to these priority needs. To assist the Committee, we will be happy to share our analysis and the data we obtained concerning backlogged grant applications. We also urge the members of the Committee to comment on our proposal that the AIP funding formula be re-evaluated.

Two final observations regarding airport funding. First, we believe the 1987 change in the percentage formula for landside improvements was a poor policy decision. The formula was changed from 50/50 for all airports to 75/25 for primary and commercial service airports and 90/10 for non-primary and general aviation airports. That's the wrong direction.

A shortage of parking lots and ticket counters is not the cause of our airport problems. It's airside improvements we need--runways, high-speed turnoffs, and taxiways.

Second, we are disturbed by reports that $100 million in already scarce discretionary funds have been invested at DFW as an incentive to encourage the construction of additional terminal space by American Airlines. The DFW project may be worthwhile, but we doubt it is a priority. This illustrates, again, the need to ensure that the FAA is focusing on priorities and is allocating scarce resources accordingly.

NAS PLAN PROGRAMS

Microwave Landing System. The Committee is undoubtedly aware of our longstanding opposition to the Microwave Landing System program. AOPA and all of the major users maintain that the advertised advantages of MLS over modern instrument landing systems--or ILS--have not and cannot be established. The advantages are illusory, and fraudulent arguments have been used to sell the program.

For example, through the use of curved or segmented approaches, the FAA suggests that MLS will yield an additional "one-third of an airport" in terms of capacity. However, curved or segmented approaches do not require MLS and in effect are already possible using existing technology. Furthermore, the political realities of noise preclude us from flying approaches over densely populated neighborhoods unaccustomed to low flying aircraft. The FAA's recent experience in New Jersey teaches us that lesson--following the bull in a china shop implementation of the Expanded East Coast Plan.

And at airports located in less densely populated regions, the additional capacity is wasted. So why spend the money to install MLS?

The enormous cost to the users and the FAA of replacing existing ILS units with MLS is clearly unjustified. Furthermore, only three other countries in the world support the concept and implementation of MLS--the Soviet Union, West Germany, and Canada.

The MLS program is the second largest cost item in the NAS Plan. Application of the three key priorities--safety, capacity, and utility--clearly dictate that this program should be eliminated. It doesn't meet the test.

For FY90, the FAA has requested $30 million which we understand would be used to purchase and install 20 Category II and III MLS systems for an operational demonstration. This would be an utter waste of tax dollars, especially since 178 units have already been purchased.

AOPA recommends that all but $12 million of the requested $30 million appropriation be reallocated to other pressing needs, such as airport funding and installation of additional ILS precision approaches. The remaining $12 million should be retained to meet the estimated cost of funding an objective MLS/ILS evaluation program which was recently proposed to the FAA by an industry MLS evaluation task force. AOPA is a member of that task force. The purpose of the proposed evaluation program would be to determine once and for all the true merits of MLS as the primary precision approach system.

The equipment buys must be stopped. A thorough, objective evaluation is essential to address the legitimate and persistent criticisms voiced by the aviation community.

Advanced Automation System. The problems persist with this expensive centerpiece of the NAS Plan. In testimony before your Committee recently, the GAO outlined its concerns regarding integration between the Advanced Automation System and the Voice Switching and Control System. We can't have one without the other. Yet, it seems the FAA and Martin-Marietta, as the Systems Engineering and Integration Contractor, have failed to adequately coordinate both the timing and the technology of the two programs. Now we find ourselves in a situation analogous to purchasing a very costly car without the carburetor.

We have consistently urged that implementation of the Advanced Automation System be thoroughly re-examined to ensure that technology has not overtaken the program, and also that the system can be integrated with satellite systems and other developing technologies. It would be a terrible mistake to devote billions of dollars and many years of effort to implement the system, only to find that it has become obsolete.

Attention and resources should be focused on more rapidly developing the promising next generation of technology, and special care should be taken to ensure that the Advanced Automation System can be fully integrated with these technologies.

Flight Service Automation System. The Flight Service Automation Program is intended to automate the manner in which essential weather data and other information is provided to pilots. Under the NAS Plan, the 317 flight service stations which existed in 1981 were to be consolidated into 61 automated flight service stations.

AOPA has supported the flight service modernization program since its inception. Our support, however, has been contingent on FAA commitments that there would be no derogation of service to users at any point during the automation and consolidation effort. Yet, the FAA has half-heartedly kept these commitments only as a result of constant vigilance on the part of this Committee and the Congress as a whole.

In 1987, Congress directed in Public Law 100-223 that the FAA is not to close or reduce the hours of operation of any flight service station in any area unless the service in that area will be provided by an automated flight service station with so-called "Model 1" equipment or better. Despite this clear Congressional mandate, we learned recently that the FAA concocted a strategy under which it would seek to persuade Congress that stations equipped with Leased A and B Service--or "LABS"--meet the Model 1 or better standard.

FAA testified before the House Appropriations Committee in April and stated that "nineteen stations would be equipped with LABS by 1992." We can see no legitimate reason for installing LABS equipment in these stations other than to circumvent the Congressional mandate. Model 1 is the standard, and it is Model 1 equipment which should be installed.

The track record for this program is scandalous. The FAA has evidenced bad faith on this issue for years, playing an ongoing shell game with the Congress and the users. Consequently, we urge that no further closings or consolidation of FSS facilities be permitted until critical actions are completed to ensure the safety of flight and the adequacy of user services. Specifically, we recommend that the FAA:

1) immediatley cease all FSS closings or reduction in hours of operation until all automated stations are brought into compliance with P.L. 100-223;

2) bring all LABS equipped stations into full compliance with P.L. 100-223 by upgrading to full Model 1 capacity;

3) maintain full-time status at specific sites recommended by the aviation community until each site is fully automated in accordance with P.L. 100-223;

4) ensure that the modernization aspect of the program is on schedule before any further consolidation is attempted;

5) maintain and fully staff as manned permanent satellite stations those facilities located where unique operational and weather conditions exist which are critical to the safety of flight.

This effort demonstrates a continuing inability to develop and implement a relatively modest program that is now seven years behind schedule. The transition has been severely flawed with unfulfilled commitments, policy revisions, abandoned programs, and personnel mismanagement. Enough is enough.

Mode S Transponders. The Mode S system is intended to replace existing Mode A radar beacon systems--or transponders--aboard commercial and general aviation aircraft. Before discussing this NAS Plan program further, it should be noted that both Mode S and the Mode A transponders currently in use provide only two-dimensional radar position reporting information. Here's why that is important.

Some incorrectly believe that one of the advantages of Mode S is that it will report both position and altitude. Mode S will not, as is sometimes thought, eliminate the requirement for a Mode C altitude encoder. In order to provide altitude reporting information as well as two-dimensional position reports, both Mode S and Mode A require the installation of an accompanying Mode C altitude encoding unit.

This point becomes relevant when evaluating the relative costs and benefits of the Mode S program.

There are two principal advantages of Mode S. First, it will have a greater individual aircraft "code" capability, which should result in decreased signal interference and more accurate position information. Second, Mode S will also have a "data link" capability which is intended to permit exchange of weather information and other data with compatible ground stations. These ground stations are an indispensable component of the Mode S program.

AOPA supports the concept of the Mode S program and believes the advantages are desirable. However, the program has slipped four years behind schedule, and Mode S will be of no real utility until the FAA has further developed the essential ground station aspect of the program.

In the meantime, the FAA has mandated by regulation that all new aircraft manufactured after January 1, 1992 must be equipped with Mode S and that no additional Mode A units may be manufactured after December 31 of this year--although existing units may be sold after that date. In practical terms, repair of existing Mode A units will shortly become impossible as the supply of replacement parts dries up.

Our concern is basic. The cost of a Mode S transponder is more than three times the cost of Mode A--roughly $4,000 as opposed to an approximate cost of $1,200 for Mode A. And this does not include the additional $500 for Mode C, nor the $600 estimated cost of the data link. The program is simply not far enough along to justify the significantly higher costs to the users which will result under the current FAA timetable for airborne avionic requirements.

We have petitioned the FAA to extend to January 1, 1994 the date until which Mode A transponders may be manufactured. This

timetable for the airborne aspect of the program would more reasonably coincide with the current date of 1996 when Mode S ground station services are projected to be available.

This matter has been pending at FAA since December, and we are hopeful that the FAA will take appropriate action to address our concern.

With respect to the appropriations request for Mode S, the FAA has requested $27 million for FY90. AOPA believes that these dollars must be carefully targeted to developing and implementing the ground equipment so necessary to the program. Only in this way can further program slippages be avoided and the increased cost to the users be justified by realizable benefits. We ask the Committee's assistance in this regard.

OTHER IMPORTANT PROGRAMS

Research funding in general. During an era when the technology challenges facing the FAA are accelerating and the stakes for the deployment of technology are at their peak, the Administration has requested only $165 million in RE&D funds--compared to the Congressionally authorized level of $222 million. In our view, the Administration has abdicated its responsibility to develop prototype navigation, weather, noise reduction, and capacity technologies.

We believe the Administration's request would underfund RE&D programs by at least $25 million, and perhaps as much as $55 million. Research and development must take a higher priority.

Weather programs. Deterioration of weather services continues in spite of FAA RE&D and NAS Plan objectives designed to improve weather services, products, and availability.

Weather is cited as a cause or primary factor in four of every ten fatal general aviation accidents and three of every ten non-fatal accidents. The aviation accident rate could be substantially improved if accurate forecast and timely weather information were more readily available for both preflight planning and inflight decisions. In addition, weather is the largest contributor to commercial delays. Nearly 60% of all delays are attributed to weather.

The FAA and the National Weather Service have failed to work together to develop an integrated network of weather services. The philosophy of the FAA seems to be, "We're getting out of the weather business," while the NWS philosophy is, "We're not in the specialized business of aviation weather."

It is time for these two agencies to agree upon a responsible mission and work together with input from the users to achieve a common objective--to enhance aviation safety.

Navigation. Perhaps the greatest long-term research needs are for definition of future navigation systems. Satellite systems promise great improvements for all segments of the aviation community in terms of communication, navigation, and surveillance. Recent U.S. and international efforts have clearly identified the benefits and have developed conceptual plans for implementing these new systems.

Much work must be done in basic research to bring these concepts to maturity. Yet we calculate that only 2% of the RE&D appropriations request has been allocated to this essential activity.

We are also concerned by the level of requested funding for both research and implementation of LORAN C as a navigation system. LORAN C holds great promise--on its own and as a system integrated with satellite navigation systems. The first 500 LORAN C approaches are tentatively scheduled for implementation in late 1990 or early 1991. However, funds for necessary equipment to realize this schedule remain unbudgeted. Over the next three years, an estimated $23 million in additional funding will be needed for implementation of the LORAN C system.

We urge the Committee to review the FAA's request and to appropriate substantial additional funds to ensure that the necessary research will be done and the equipment and personnel can be deployed to take advantage of these promising navigation technologies.

STATEMENT OF THE AIRPORT OPERATORS COUNCIL INTERNATIONAL

Mr. Chairman and Members of the Subcommittee:

The Airport Operators Council International (AOCI) represents the local, regional and state governing bodies that own and operate the principal commercial service airports in the United States and throughout the world. AOCI's U.S. member airports enplane more than 90 percent of total domestic and virtually all international scheduled airline passenger and cargo traffic in the U.S.

We appreciate this opportunity to submit our views and recommendations regarding fiscal year 1990 appropriations for FAA programs. Our testimony will focus on the following areas and concerns which need this Subcommittee's attention and support:

1. The need for full funding of the Airport Improvement Program (AIP) at $1.7 billion, the authorized level;

2. The need for a strategic National Airports System Development Plan and new financing tools to enable airports to advance and finance projects to increase capacity and meet growing demand;

3. Full funding of FAA's Facilities & Equipment Program to continue the NAS Plan modernization and the importance of moving forward on MLS development and implementation;

4. Greater funding and priority for FAA airport capacity technology initiatives, particularly those recommended by the Industry Task Force on Airport Capacity Improvement and Delay Reduction;

5. The need for new, dedicated funding from the Trust Fund for federally mandated airport access control systems and a pilot program. Funds to accelerate FAA security R&D projects to develop explosives detection devises;

6. Rapid development of efforts to automate the ATC system; and

7. The need to help FAA augment its in-house technical expertise.

AIRPORT CAPACITY PROBLEMS AND NEEDS

The state of aviation today is not good, and the prospects for the future are troubling. It has become painfully obvious to us in the industry and to air travelers and shippers that we do not have enough airport capacity throughout the system and at key locations to efficiently handle growing aircraft traffic and air passengers.

The lack of capacity is the major constraint on our nation's aviation system today. It has prevented the aviation system and industry from growing and flourishing, and has shortchanged our nation in terms of the economic benefits that are gained by airport facilities and activity.

Consider these facts:

-- In 1987, over 450 million passengers and billions of dollars in cargo were handled at U.S. airports. By 1999, the FAA

forecasts that passenger enplanements will increase by 72 percent and aircraft operations will grow by 33 percent.

-- In 1987, 21 major airports were "seriously congested", according to the FAA, each experiencing more than 20,000 hours of delays. Barring major improvements in airport capacity, about 40 airports will become seriously congested by 1997, affecting 80 percent of all passengers.

This is an alarming prospect considering the ripple effect that congestion and delays at one major airport can cause throughout the system. Delays are costly: each 20,000 hours of delay equates to an additional $32 million cost to airlines; and today airlines and passengers are paying an estimated $5 billion each year for delays, according to the FAA, due to increased operating costs and lost time. As a nation, we are paying a high price for an inadequate, over congested air transportation system, and we are losing the full benefits of deregulation.

The remedies are obvious, and there are only a few:

1. Build new airports -- Austin and Denver are the only communities planning for new airports, and would be the first major airports to be built in fourteen years. Denver has requested $1.1 billion in AIP funds, while Austin needs $500 million. At least three additional new major airports will also be needed.

2. Build new runways -- Among the top 100 airports, 50 new runways and about a dozen runway extensions are either planned or under construction at a cost of more than $2.5 billion.

3. Implement technological improvements that are available to make existing airports and runways as efficient as possible to optimize the limited existing capacity.

AOCI's 1986 forecast of airport capital development needs for the period 1988 to 1992 shows a requirement of nearly $30 billion. The FAA's own National Plan of Integrated Airport Systems (NPIAS) reveals similar needs of $24.3 billion over ten years for AIP-eligible projects alone, 72 percent of which are projects to increase airport capacity. Meanwhile, in the face of these dramatic needs, the Aviation Trust Fund has accumulated a $6 billion uncommitted surplus, and the FAA now has more than $7 billion in pending pre-applications from airport sponsors.

AIRPORT IMPROVEMENT PROGRAM FUNDING

It should be obvious that our nation's airport system is suffering from over-congestion and under-investment. We recognize and appreciate that this Subcommittee has made the best effort to increase AIP funding over the years, but it is simply not enough. The aviation system has been victimized by federal budget deficit pressures which have precluded full funding of AIP. AIP has become little more than a "band-aid" or maintenance program, and cannot begin to provide sufficient funds to build the new runways and airports that are planned or needed.

The administration's budget request of $1.35 billion for AIP is inadequate. Airports desperately need the full $1.7 billion authorized for fiscal 1990. In addition to cutting AIP, the administration proposes to reduce entitlement grants to primary airports by 21% in order to transfer an additional $135 million for capacity discretionary grants. That's like robbing St. Petersburg to pay St. Paul. This will only reduce monies that primary airports need and have already committed to important

capacity and safety projects. The way to get more discretionary funds for capacity is to appropriate the full $1.7 billion, which would provide the level that FAA needs.

INNOVATIVE AIRPORT FINANCING TOOLS

Given the inadequacies of the AIP program -- evidenced most dramatically by FAA's inability to provide AIP dollars requested for the new airports in Denver and Austin and for many other important capacity projects -- new financing tools are desperately needed.

Recognizing these limitations and current federal budget constraints, AOCI has developed two new funding initiatives which could provide substantially greater funds for airports. These initiatives have been endorsed by our member airports -- large and small -- across the country, and we hope you will give them serious consideration.

Airport Revolving Loan Fund

One proposal is to create a Federal Airport Revolving Loan Fund (RLF) that would provide $1 billion in loans each year, in addition to AIP, for airport capacity, security, safety and noise projects. The RLF could be created with "seed" money from the Aviation Trust Fund over only a few years, with minimal budget impact. Airports would repay the loans into a separate "off-budget" RLF which could then make additional loans and become a self-sufficient, reliable source of funds that would not require any additional Trust Fund monies. Over 30 years, the RLF could generate funds to finance $68 billion in airport construction projects. The Revolving Loan Fund concept offers a creative, budget-sensitive way to put more Trust Fund dollars to work for aviation, as they were intended.

"Security/Capacity Charges"

Airports also believe it is imperative that they be able to raise revenues from the one user source which is most directly related to the demand and need for airport facilities and services -- air passengers. When deregulation was enacted, the prohibition on passenger charges was not eliminated and airports were left with limited financial resources to deal with unconstrained demand. Many of the current constraints to increasing capacity could be overcome and local financing capabilities would be greatly enhanced if airports were allowed the flexibility to impose "security/capacity" charges. This funding source is particularly important in view of current threats to airport and aviation security and the need for better systems to protect passengers. Airport passenger charges would enable each airport to impose a fee to cover the costs of access control systems and security enhancement programs, as well as to finance other important capacity and safety projects. It would be a reliable and powerful financing tool, and perhaps best of all, it would have no cost to the federal government.

We would be pleased to provide more details on our proposals. We ask for your help to find new and better ways to finance the kind of air transportation system our country desperately needs.

AIRPORT TECHNOLOGY INITIATIVES AND THEIR FUNDING

AOCI strongly supports and endorses the recommendations of the Industry Task Force on Airport Capacity Improvement and Delay Reduction, of which AOCI is an active organization member. The

Industry Task Force's statement is attached for inclusion in the hearing record.

Technological improvements and improved airspace procedures are very important to adding capacity to the system. We believe that FAA's R&D efforts must be better focused and funded to expedite the development and application of innovative procedures for handling aircraft and increasing airport capacity.

In selecting the elements of needed effort, the Industry Task Force chose to concentrate on tasks which show promise of yielding increases in the direct, intrinsic, maximum achievable capacity of an airport complex.

The specific recommendations of the industry through the Industry Task Force have emphasized tools and procedures for the reduction in lateral or longitudinal spacing requirements, tools to permit the reduction in required wake vortex spacing, the ability to provide independent arrival or departure streams, and the ability through automation to reduce inter-arrival variability. These projects will provide direct capacity increases essentially full time, right at the cutting edge where the requirements are.

AOCI appreciates the recognition and support given by this Subcommittee to the serious and growing problem of limited airport capacity. Much of the progress to-date is attributable to the direction and dedicated funding this Subcommittee provided in last year's appropriations bill. We again need your assistance to focus FAA's energies and resources in this important area. It is time to recognize that we are embarked on a major effort which requires adequate and sustained funding and a more committed effort to move these initiatives to fruition.

Airport Capacity Technology Needs for FY 1990

AOCI joins the Industry Task Force in recommending the following specific capacity enhancement initiatives and associated funding levels for Fiscal Year 1990:

Completion of Development, Installation, Demonstration, Procedure Development and Validation of High Data Rate and Medium Data Rate Sensor Systems for Closely Spaced Parallel and Converging Runway Reduced Minimums Operations . . . . . $8.0 million

Airspace Procedure Development, Simulation, Validation and Demonstrations for Triple/Quadruple Runway Simultaneous Operations, Reduced Minimums Converging Operations, Wet-Runway Reduced Minimums Operations, Establishment of Criteria and Specific Achievable Minimums Benefits from MLS Precision Curved/Segmented Approaches and Departures . . . . $4.0 million

Development and Validation of Terminal Automation Tools for earliest possible stage by stage implementation of a terminal operations planner, by 1992 . . . . . $8.0 million

Reduction of the Capacity Reducing Impact of Wake Vortices, through development of automatic dynamic spacing adaptation, development and validation of wake vortex detection and avoidance sensors and renewed efforts at elimination of wake vortices at the aircraft source . . . . . $4.0 million

Simulation Model Development and Validation . . .	$2.0 million
Development and Validation of Minimum Performance Standards and Procedures for safe use of cockpit traffic displays in terminal operations	$0.4 million
Airport Surface Visual Control (Lighting) to permit efficient taxiway exit operations, development, validation and procedure development for stop bars and hold-short systems for runway entrances and ends	$1.2 million
Airport Surface Traffic Automation, utilizing earlier research and development to develop and demonstrate an airport surface surveillance, guidance and control system, implementable in steps and using the technologies used in the airspace system where practical	$4.0 million
Airport Capacity Enhancement Planning and Analysis	$1.5 million
	$33.1 million

This amount is the minimum need for a concerted attack on the capacity problem. Little if any of this is research; virtually all is development.

A minimum of approximately $4 million in additional R&D funding is also needed to conduct meaningful airport-related R&D to enhance safety and to provide for product improvement on FAA's major investment in runways and pavements. A small amount of money, approximately $0.5 million should also be earmarked for the development of new ideas and new concepts by advanced thinkers in the field. F&E funds will also be required to achieve the gains promised by the R&D projects. Most of such funds have not yet been requested, but the above needs assume that FAA's FY-90/91 request for $53.6 million for 10 precision runway monitors will be favorably considered by Congress.

In summary we believe that for FY-90, a minimum total of $37.6 is needed for airport capacity technology work. If Operations funding of operations analysis work can not be found, a total R,E&D amount of $42.6 will be needed. We ask your support for this funding request to advance these important initiatives.

Full implementation of technological improvements may provide a net increase of 20 to 25 percent in system-wide airport capacity. That will help considerably, but it is only part of the solution. These initiatives must be advanced in tandem with building new runways and new airports which will provide the greatest long-term improvements to capacity.

FAA FACILITIES AND EQUIPMENT AND THE BENEFITS OF THE MICROWAVE LANDING SYSTEM

AOCI supports the FAA's proposed budget increase for the Facilities and Equipment Program, which is essential to continue work on the National Airspace Modernization Plan.

We would like to emphasize the importance and benefits of the Microwave Landing System and recommend that funding of at least $30-35 million be provided to enable FAA to pursue the earliest possible procurement and wide-scale installation of MLS.

An argument heard frequently is that ILS has improved so drastically in the last few years that MLS is no longer needed. While ILS has improved, the argument does not hold

water. ILS remains a "nervous", hard- and expensive-to-maintain, single approach path system with limited capability, a limited number of channels, high site-preparation cost, a sizeable "critical area" on the airport which must be sterilized and thus wastes valuable airport real estate, and no way to expand its utility to provide precision approach sector or departure/missed approach coverage or consistent coverage to runway threshold or beyond. ILS has no capability to provide angled, segmented or curved approach and departure paths which are of great value in reducing inter-airport interference, producing noise relief to communities around airports, and facilitating introduction of important capacity-enhancing operating procedures at capacity-constrained airports.

Another argument is that MLS represents a now-obsolete technology; yet another that satellite navigation will provide the same capabilities as MLS. Both arguments are without merit. The new technologies are likely to be highly valuable, but they will not substitute for MLS.

There is really no doubt as to MLS capability and value. MLS is perhaps the most thoroughly tested and wrung-out system ever developed for U.S. and world-wide implementation. Its capabilities have been demonstrated time and again, and its value in providing better, safer approach and landing service, and sorely-needed airport capacity enhancements are clear. Among the important benefits MLS offers are: the creation of least-noise approach and departure paths, shorter precision finals to solve airspace conflicts, reducing required decision heights because the MLS beams are clean to threshold and beyond, taking advantage of routinely lower flight technical error, using the precision guidance to permit better close-in operations with less airspace required for parallel runway and converging runway missed approach operations, and having enough channels for future needs.

Without energetic action by the Administration and support from Congress now, the MLS program is likely to fail. The only solution to this problem is for the Government to move boldly to implementation.

AIRPORT ACCESS CONTROL RULE AND SECURITY RESEARCH & DEVELOPMENT NEEDS

In addition to all the other airport needs, 270 airport operators are now faced with substantial new costs to install, on an accelerated schedule, automated access control systems for secured areas as required by the recent FAA rule (January 1989). Although it is a laudable goal, and one on which many airports have already begun work, we have great concerns about the rule.

There are many problems with the rule. This rule was developed in a vacuum, and as a result, FAA grossly underestimated the costs, failed to consider operational and compatibility problems, provided no new funding, and set a totally unrealistic deadline for compliance which airports simply cannot meet. FAA estimates a total cost for access control systems at all 270 airports to be just under $170 million over ten years. However, AOCI's and industry estimates reveal the actual costs may be ten times that amount -- **nearly $1 billion** -- because FAA has looked only at initial equipment costs and underestimated the number of access doors that will be affected.

FAA estimated an average of 128 doors at a Phase One airport (one which screens more than 25 million passengers annually. However, many airports have far more than that number. At the Port Authority of New York and New Jersey's airports, Kennedy International has more than 1500 access doors in its passenger

terminals alone, not counting cargo, general aviation or other facilities. At an estimated cost of $18,000 per door, the cost of to install access control systems at those 1500 locations will be approximately $27 million. Preliminary bid estimates for Kennedy's International Arrivals Building indicate installation costs of $4-6 million. Newark International has about two-thirds that number, and LaGuardia will have about 750 access points impacted by the rule. Baltimore/Washington Airport, which screens approximately 6 million passengers, has more than 130 access points to the air operations area from the terminal building alone. Chicago's O'Hare International Airport stopped counting at 1627 access points. In addition to the expensive installation costs, airports will have to pay the annual costs associate with operating and maintaining these systems, approximately 10% of installation costs annually.

Further, there is little guidance from the FAA as to what type of system will meet the requirement for enhanced security procedures, or even what a "secured area" is. The access control rule is silent on the need for compatibility among the 270 systems. The need for compatibility becomes obvious when one considers the high degree of mobility in the aviation industry, where one flight crew might require access to more than a half-dozen different airports each day, or where fired employees can access their company security system at another airport within a matter of a few hours. But such compatibility requires a great deal of development and standardization effort.

AOCI and other industry organizations have recommended to the FAA and to several Congressional panels that a federal pilot access control security program is needed at four or five airports of varying size, traffic levels, and configuration to help identify the equipment and methodologies which work...and equally important, those which do not work well in a functioning airport environment. Further, it would allow airports to build their systems based on proven technology which concentrates on "real-world" data for airport security systems and technology.

Before airports are forced to spend hundreds of millions of dollars on a federally mandated "trial-and-error" security program, a pilot program should be conducted to test these systems, work out operational problems and answer the many questions that FAA is unable to answer. We greatly appreciate the recognition of our concerns this Subcommittee expressed in the FY '89 DOT/FAA appropriations committee report, which urged FAA to conduct operational testing before proceeding with the rule. Unfortunately, FAA did not heed your request.

We urge this Subcommittee to provide $24 million in R&D funds and direct FAA to immediately undertake a pilot or "lead airport" program for access control. A pilot program is the only way that we can be assured that the best technology and operationally sound systems will be developed. Otherwise, we may end up with systems that do very little to enhance security.

Adopting a pilot program does not mean that airports will stop developing access control systems. Airports will continue to develop their plans to meet their particular security needs and the rule's requirements, but they will benefit greatly from the problems that arise and are resolved through the pilot program before they make the same mistakes.

How will airports pay for these expensive systems? The FAA only plans to allot about $28 million for FY '89 and $38 million for FY '90 from AIP. **Unless this Subcommittee provides additional funding from the Trust Fund, dedicated for this purpose, airports will be forced to divert funds from other important safety, security and capacity projects.** If it is in the national

interest to require access control systems at airports, then we believe it is also a federal responsibility to provide funding assistance to enable airports to meet their federally mandated requirements. However, any additional funding must not detract from full funding of the AIP program. The most effective means of providing funding for these new security systems is to allow airport operators to impose "security/capacity" charges, as recommended above, to meet this federally mandated requirement and future security and other improvement needs.

Aviation Security R&D

Recent terrorist incidents point up the need for a major federal research & development effort and funding to develop new technologies that will enhance airport and aviation security programs.

The FY '90 FAA budget for all aviation-related security R&D is $9.1 million. This is inadequate even to complete several needed security R&D projects already underway. AOCI has outlined below the additional amounts necessary to complete these projects under an expanded and accelerated program, along with an estimated time of completion of research, engineering and development for each.

The breakdown of the AOCI funding proposals are as follows:

- Thermal Neutron Activation (TNA) explosives detection:

  $2.6 million to develop a mobile system; and,
  $2.5 million to adapt the system to inspect carry-on bags.

- Vapor Detection systems:

  $4.2 million to develop a passenger walk-through system;
  $4.0 million to develop a carry-on bag system;
  $2.5 million for a checked-baggage system; and,
  $1.7 million for a portable system.

In addition, there are new security concepts being tested by FAA at the Technical Center in Atlantic City which should be explored and funded more rapidly.

The federal government must accelerate R&D work in these areas to expedite the development of sensible and effective systems and technology for aviation security.

These additional funding needs, as important as they are, should not be met by diminishing the amounts for the other FAA R,E&D we have identified. New funds are needed.

INDUSTRY TASK FORCE ON AIRPORT CAPACITY IMPROVEMENT AND DELAY REDUCTION

STATEMENT OF J. DONALD REILLY, CHAIRMAN

One of the most serious problems facing U.S. civil aviation today is the lack of airport capacity.

Some 20 major airports now face severe capacity constraints. Barring significant levels of new capacity, the number of capacity constrained airports is expected to grow to 40 by the year 2000. The cost of delays is now estimated at $3 billion to $4 billion per year. Yet passenger growth is expected to double by the year 2000.

Query: If we cannot handle today's passenger volume, how will we ever handle the anticipated doubling in demand on the system by the year 2000?

There are only a few cures to our national problem of inadequate airport capacity:

1. Build new airports - at least 6 to 10 new airports are needed in the U.S. in the next eleven years;

2. Build new runways - at existing airports probably some 50 new runways will be needed;

3. Expedite new technology and procedures to make existing airports and runways as efficient as possible.

Unfortunately, the chances of building even three major new airports in the U.S. by the year 2000, are dim to nil; and the chances of building the number of required new runways at current airports appears impossible due either to airport physical constraints or local environmental opposition.

Therefore, it is imperative that we vigorously pursue the third option -- initiatives for more efficient use of current airports -- as energetically as possible. These initiatives offer the least expensive approach, will produce the fastest returns on investment, can provide capacity increases of 20% to 100% based on an airport's local circumstances, and has the support of most all individuals in the industry.

Past Congressional Action

The Industry Task Force on Airport Capacity Improvement and Delay Reduction appreciates the recognition given by Congress to the serious and growing problem of limited airport capacity. We are grateful for the actions taken by the last Congress which:

a) provided in the FAA Research, Engineering & Development authorization that FAA must spend at least $25 million annually for airport capacity enhancement initiatives;

b) defined for FAA the kinds of projects which Congress considers to be responsive to the need to use achievable technology to create additional airport capacity (Att. 1 reproduces the Congressional language);

c) specified several of the most important tasks which must be completed by FAA in a timely manner, and requested timely reports of their status; and

d) added $5 million as part of the FAA FY-1989 appropriation which was greatly needed to help FAA expedite this work.

Help for FAA

- o Center-of-Technology Expertise

  It is not a secret to any knowledgeable observer that FAA, in its difficult budget situation, has not been able to assign adequate funds or people to this difficult area of work. For some years the NAS Plan has absorbed virtually all of FAA's energies, leaving little for other pursuits. While the NAS Plan is essential to modernize the air traffic control system, it will not solve aviation's problems if air traffic continues to be backed up because of inadequate airport capacity.For many reasons FAA simply does not have the critical mass of internal expertise to carry the essential projects forward. The Industry Task Force, recognizing this problem, last year urged Administrator McArtor to establish a major external center-of-expertise with consistent funding and specific accountability for results in a given time with given funds, supervised by high level FAA managers representing both engineering and operations/safety disciplines. While this has not yet happened, we are pleased to see that on several of the most important efforts single, highly competent contractors are now in place.

- o FAA Coordination of Airport Capacity Improvement Progress

  Airport capacity projects almost inevitably require close cooperation between at least three of FAA's executive directors and a clear vision of priority and approach. We believe it is time for FAA to rejuvenate and give strong effect to the FAA Airport Capacity Program Office, to give it the charge to reach top FAA management, to have responsibility and accountability for priority setting and to assure that airport capacity projects which meet the need are properly carried out.

In this respect we applaud the FAA for its recent action in creating an internal airport capacity policy steering group with representation from the four FAA line organizations, including R&D, operations, air traffic, flight standards, F&E, and prominently, the Airport Capacity Program Office.

FAA's Administrator McArtor's 1988 Assessment of the Need

It became clear a year ago to the Industry Task Force on Airport Capacity Improvement and Delay Reduction that it was not sensible to simply propose budgets and projects for R,E&D, but that it was necessary to call for completed projects and accomplishments, realizing that results would involve people and funds and commitments from several FAA elements. The Industry Task Force, early in 1988 asked FAA Administrator McArtor for his estimate of what it would take to bring the primary Task Force-recommended projects to first operational implementation.

On April 21, 1988 FAA Administrator McArtor provided FAA's "estimates of the total funding and time required for first operational implementation, as well as a funding breakdown for each of the twelve objectives" identified by the Task Force (Attachment 2).

The total funding required to bring the projects to first operational implementation was $276.5 million, over a time frame to bring the projects to first implementation ranging from 1 to 8 years, with a five-year average time for all the projects. Spread evenly over the 5-year average time, the funding required would be $55.3 million per year ($31.5 million R&D, $23.4 million 'other'). If the expedited time of three years average, as urged by the Industry Task Force, were used, $53.3 million of R&D plus $39 million 'other' funding would be needed each year. These amounts do not include F&E funds beyond those needed for the first implementation. Nor do they include funds for other worthwhile capacity R&D work beyond that identified specifically by the Industry Task Force.

Definition of What Airport Capacity Enhancement Projects Are

A great deal of FAA's R&D work contributes in one way or another to the achievement of capacity, and it is therefore easy, in constructing and justifying a budget, to include under the heading of airport capacity R&D anything that impacts it, even inferentially. Further, in looking at budgeted amounts and the necessarily brief and often vague descriptions, it is difficult to tell how much of the budgeted amount will be used for the Federal payroll and plant, how much for study and analysis, and how much to actually completing a specific project to achieve new capacity. Only detailed study with FAA managers will produce a meaningful assessment.

In selecting the elements of needed effort the Industry Task Force chose to concentrate on tasks which show promise of yielding increases in the direct, intrinsic, maximum achievable capacity of an airport complex. (This selection casts no negative reflection on other necessary FAA R&D work, but identifies the tasks which are considered to have the highest payback in terms of direct, full-time airport/terminal area capacity).

The specific recommendations of the industry through the Industry Task Force have emphasized tools and procedures for the reduction in lateral or longitudinal spacing requirements, tools to permit the reduction in required wake vortex spacing, the ability to provide independent arrival or departure streams, and the ability through automation to reduce inter-arrival variability. These projects will provide direct capacity increases essentially full time, right at the cutting edge where the requirements are.

DOT/FAA FY-90 Request for Capacity Work

For FY-90, we understand that FAA is requesting a total of $25 million for R,E&D under its "System Capacity and Airports" heading, plus some additional funding under other FAA R,E&D headings, vis a vis its FY-89 request of $20.779 million (to which Congress added $5 million to emphasize its commitment to solving the airport capacity problem). We understand also that FAA is requesting F&E funds in the amount of $53.6 million over two years for ten new radar sensors needed to achieve major capacity gains at the most congested airports. Unfortunately, the $25 million-plus request covers work which, though worthwhile, does not fully carry out the needed tasks to achieve capacity gains as the Industry Task Force has defined them. It includes much work which does not meet the Congressional or the Industry Task Force definition. For example, it includes $2.5 million for development of the National Airspace System Performance Capability, $.66 million for Airport Safety Planning, $.66 million for Airport Safety Support Systems, $2.08 million for Airport Pavement.

Many of these efforts are no doubt worthwhile, but they belong in different categories. As noted below, airport operators feel that airport pavement work is essential, has been short-changed for years, and deserves the emphasis given in Attachment 3 (and funding at approx. $4 million vis a vis the $2 million being requested), but it does not belong in the category of airport capacity projects.

We believe the material in the DOT/FAA budget presentations is, as always, many months behind the current situation. The descriptions and numbers are not fully revealing, and we are aware that FAA is trying to streamline and improve its own internal processes to assure that its project in practice respond to the needs. A highly valuable recent effort by the MITRE Corporation for FAA lays out clearly what can be achieved, the necessary improvements, and the obstacles in the way. A summary of that work, used by the Industry Task Force and airport operators in their considerations, is given in Attachment 4.

Recommendations for FY-90

The funding requirements (Attachment 2) candidly laid out by Administrator McArtor in 1988 (a minimum of $55 million/year total funding for at least five years to accomplish the projects identified by the Industry Task Force) remain the best indication of the real need.

It is time to recognize that we are embarked on a major effort which unfortunately requires adequate funding.

Additional funding is required by FAA for continuing operations analysis, for other vital FAA activities, and for airport design and pavement work, but should not be confused with needs for work in airport capacity technology. Additional funding is required for tasks which have an impact on best utilization of the terminal airspace and airports, but which are beyond those identified by the Industry Task Force. **Considering the budget constraints, we urge that Congress appropriate funds (and earmark them specifically for airport capacity technology by the definition given above) as follows for FY-90 for the most essential capacity technology work identified by the Industry Task Force:**

Completion of Development, Installation, Demonstration, Procedure Development and Validation of High Data Rate and Medium Data Rate Sensor Systems for Closely Spaced Parallel and Converging Runway Reduced Minimums Operations	$8.0 million
Airspace Procedure Development, Simulation, Validation and Demonstrations for Triple/Quadruple Runway Simultaneous Operations, Reduced Minimums Converging Operations, Wet-Runway Reduced Minimums Operations, Establishment of Criteria and Specific Achievable Minimums Benefits from MLS Precision Curved/Segmented Approaches and Departures	$4.0 million
Development and Validation of Terminal Automation Tools for earliest possible stage by stage implementation of a terminal operations planner, by 1992	$8.0 million
Reduction of the Capacity Reducing Impact of Wake Vortices, through development of automatic dynamic spacing adaptation, development and validation of wake vortex detection and avoidance sensors and renewed efforts at elimination of wake vortices at the aircraft source.	$4.0 million
Simulation Model Development and Validation	$2.0 million
Development and Validation of Minimum Performance Standards and Procedures for safe use of cockpit traffic displays in terminal operations	$0.4 million
Airport Surface Visual Control (Lighting) to permit efficient taxiway exit operations, development, validation and procedure development for stop bars and hold-short systems for runway entrances and ends	$1.2 million
Airport Surface Traffic Automation, utilizing earlier research and development to develop and demonstrate an airport surface surveillance, guidance and control system, implementable in steps and using the technologies used in the airspace system where practical	$4.0 million
Airport Capacity Enhancement Planning and Analysis	$1.5 million
	$33.1 million

This amount is the minimum need for a concerted attack on the capacity problem. Little if any of this is research; virtually all is development.

In addition, approximately $5 million of additional FAA Operations funding (or alternatively, R,E&D) is required to conduct planning and development analyses to assure optimal operation of the FAA system, by funding application of appropriate airport and system analytical tools, and supporting airport-specific capacity improvement task forces.

A minimum of approximately $4 million of additional R&D funding is necessary to conduct meaningful airport-related R&D, to enhance safety and to provide for product improvement on FAA's major investment in runways and pavements. (A proposal for well-focussed priority FAA R&D in this field has been prepared as noted in Attachment 3).

Virtually all the recommendations contained in this material deal with ideas and concepts which are well understood and which require energetic development and implementation. We believe a small amount of money should be devoted to the development of new ideas and new concepts by advanced thinkers in the field, and propose that Congress earmark $0.5 million for this purpose.

Major progress on several capacity-generating concepts has been made through activities of the FAA Air Traffic Service. It is essential that these experts remain deeply involved in this work, operating through the management oversight group recommended above.

F&E funds will be required to achieve the gains promised by the R&D projects. Most of such funds have not yet been requested, but the above needs require that FAA's FY-90/91 request for $53.6 million for 10 precision runway monitors will be favorably considered by Congress. We believe further that Congress must provide funds to permit FAA to lay the base for wise procurement of the Microwave Landing System from dual sources, and to proceed quickly to demonstrate again the benefits of MLS in Category 2 and 3 operations and precision approach and departure sector guidance for airport capacity enhancement.

Recommendation

In summary we believe that for FY-90, a minimum total of $37.6 is needed for FAA's airport capacity technology work. If Operations funding of operations analysis work can not be assured from other portions of the FAA's FY-90, a total R,E&D amount of $42.6 will be needed. This is a substantial amount, but a tiny one when compared to the $3-4 billion cost of delay resulting from inadequate capacity. This $42.6 million need represents only $17.6 million in new money over the FAA budget request.

[CLERK'S NOTE: The attachments will not be printed in the hearing record but will be available for review from the subcommittee office.]

STATEMENT OF THE AMERICAN ASSOCIATION OF AIRPORT EXECUTIVES

THE AMERICAN ASSOCIATION OF AIRPORT EXECUTIVES (AAAE) WAS FOUNDED IN 1928 TO REPRESENT AIRPORT MANAGEMENT THROUGHOUT THE UNITED STATES. TODAY, AAAE IS THE LARGEST PROFESSIONAL ORGANIZATION FOR AIRPORT EXECUTIVES IN THE WORLD, REPRESENTING OVER 1500 AIRPORT MANAGEMENT PERSONNEL. OUR MEMBERSHIP IS TRULY REPRESENTATIVE OF AIRPORT MANAGEMENT AS IT IS NEITHER "BIG AIRPORT" NOR "SMALL AIRPORT" ORIENTED. AAAE HAS WITHIN ITS MEMBERSHIP THE EXECUTIVES OF LARGE AND MEDIUM SIZE AIRPORTS AS WELL AS HUNDREDS OF MANAGERS FROM THE SMALLER AIRPORTS -- USED EXCLUSIVELY BY GENERAL AVIATION OR REGIONAL AIRLINES.

AIRPORT IMPROVEMENT PROGRAM

TWO YEARS AGO, CONGRESS PASSED THE AIRPORT AND AIRWAY SAFETY AND CAPACITY EXPANSION ACT OF 1987 AND IN DOING RECOGNIZED THAT LONG TERM INVESTMENT IN AIRPORT CAPITAL DEVELOPMENT IS ESSENTIAL TO THE DEVELOPMENT OF A SAFE AND EFFICIENT AIR TRANSPORTATION SYSTEM. THERE IS NO QUESTION OF THE NEED FOR FEDERAL FUNDING ASSISTANCE. CURRENTLY, THE FAA HAS ON FILE $7 BILLION IN REQUESTS FROM AIRPORT OPERATORS FOR SAFETY AND CAPACITY RELATED PROJECTS ELIGIBLE FOR FEDERAL FUNDING UNDER THE AIRPORT IMPROVEMENT PROGRAM (AIP) -- PROJECTS SUCH AS THE PURCHASE OF FIRE FIGHTING AND RESCUE TRUCKS AND SECURITY SYSTEMS, EXTENSION OF THE SAFETY OVERRUN AREAS OF RUNWAYS AT AIRPORTS, AND UPGRADING AIRFIELD LIGHTING AND MARKING. FURTHERMORE, OF THE $7 BILLION IN SPONSOR REQUESTS, THERE ARE 19 AIRPORTS ASKING FOR A TOTAL OF $3 BILLION. FOR EXAMPLE, THE NEW DENVER AIRPORT IS ELIGIBLE FOR AIP ASSISTANCE IN THE AMOUNT OF $1.2 BILLION; FT. LAUDERDALE IS ASKING FOR $135 MILLION; DETROIT, $63 MILLION; JFK, $53 MILLION; LOUISVILLE, $154 MILLION; AND MEMPHIS, $171 MILLION. THE SIGNIFICANT AIRPORT SAFETY AND CAPACITY NEEDS ARE FURTHER DEMONSTRATED BY FAA FORECASTS IN WHICH THE AGENCY ESTIMATES TOTAL ELIGIBLE AIRPORT NEEDS OF MORE THAN $20 BILLION WILL BE REQUIRED BY 1995.

DESPITE THESE ENORMOUS NEEDS, THE BUSH ADMINISTRATION IS PROPOSING A CUT IN THE AIRPORT IMPROVEMENT PROGRAM FOR FY 1990. THE ADMINISTRATION'S $1.35 BILLION AIP REQUEST, $350 MILLION BELOW CONGRESSIONALLY-AUTHORIZED LEVELS AND $50 MILLION UNDER LAST YEAR'S APPROPRIATION, IS IRRESPONSIVE. IN FACT, $700 MILLION IN CONTRACT AUTHORITY REMAINS UNOBLIGATED DUE TO THE LOW FISCAL YEARS 1988 AND 1989 APPROPRIATIONS EVEN THOUGH AVIATION EXCISE TAXES WERE FULLY COLLECTED.

YOU HAVE HEARD ALL THE ARGUMENTS REGARDING THE FEDERAL GOVERNMENT'S TREATMENT OF THE AVIATION TRUST FUND. WHETHER THE ESTIMATED $6 BILLION TRUST FUND SURPLUS BELONGS TO THE GENERAL TAXPAYERS OR THE AVIATION SYSTEM USERS, WE BELIEVE, MISSES THE POINT. AIRPORT OPERATORS SIMPLY WANT THE TRANSPORTATION TAXES TO BE FULLY UTILIZED TO EXPAND AND MODERNIZE THE AIR TRANSPORTATION SYSTEM. IF THE FEDERAL GOVERNMENT CANNOT MEET THE CHALLENGE OF FINANCING THESE ENORMOUS AIRPORT CAPACITY NEEDS, THEN WE BELIEVE IT IS TIME FOR THE INDUSTRY, THE CONGRESS AND THE ADMINISTRATION TO RE-EXAMINE THE WISDOM OF FEDERAL LAW WHICH PROHIBITS AIRPORTS FROM RAISING REVENUES FROM LOCAL AIR TRAVELERS.

A BETTER SOLUTION FOR FINANCING AIRPORT DEVELOPMENT MUST BE FOUND IMMEDIATELY. OTHERWISE WE WILL NOT SOLVE THE CRITICAL CAPACITY AND SAFETY PROBLEMS FACING US, NOR RELIEVE PASSENGER DELAYS, INCONVENIENCE AND FRUSTRATIONS. AIRPORTS MUST BE GIVEN THE FINANCIAL WHEREWITHALL TO UPGRADE AND ENHANCE AIRPORT CAPACITY, SECURITY AND SAFETY PROJECTS IN ORDER TO RESPOND TO CURRENT PROBLEMS AND FUTURE NEEDS.

THE TRIGGER TAX PROVISION PASSED BY CONGRESS IN THE AIP REAUTHORIZATION LEGISLATION HAS FOCUSED NEEDED ATTENTION ON THE UNDER-FUNDING ISSUE. AAAE WOULD, HOWEVER, PREFER FULL APPROPRIATIONS TO TAX REDUCTIONS IF WE ARE GOING TO MAKE ANY REAL PROGRESS IN EXPANDING THE CAPACITY OF THE NATION'S AIRPORT AND AIRWAY SYSTEM. THUS, WE URGE THIS SUBCOMMITTEE TO APPROVE A SUPPLEMENTAL APPROPRIATIONS OF $420 MILLION IN THE CURRENT FISCAL

YEAR TO PREVENT THE TRIGGER TAX PROVISION FROM TAKING EFFECT. IF THE "TRIGGER" DOES NOT GO OFF, THE CONGRESSIONAL BUDGET OFFICE ESTIMATES THAT AN ADDITIONAL $1.2 BILLION IN AVIATION USER TAXES WOULD FLOW INTO THE TREASURY FOR FY 1990. A $420 MILLION SUPPLEMENTAL WILL PROVIDE MUCH NEEDED FUNDS FOR AIRPORT DEVELOPMENT WHILE STILL PROVIDING A NET INCREASE TO THE TREASURY OF $780 MILLION.

ON ANOTHER FUNDING ISSUE OF GREAT CONCERN TO AAAE, WE ASK THAT THE SUBCOMMITTEE CONTINUE TO REMIND FAA THAT CONGRESS, IN THE 1987 REAUTHORIZATION LEGISLATION, INTENDED THAT ALL SIZES OF PRIMARY AIRPORTS BE APPROPRIATELY FUNDED FOR DISCRETIONARY AIP FUNDS AND, IN THE CASE OF LOW APPROPRIATIONS, ALL DISCRETIONARY CATEGORIES -- CAPACITY, SAFETY, AND SECURITY -- SHOULD SHARE EQUALLY IN THE PAYING OF REDUCTIONS. FINALLY, WE UNDERSTAND THAT FAA IN ITS 1990 BUDGET REQUEST IS PROPOSING THAT THE AIP ENTITLEMENT FORMULA BE CHANGED SO THAT AIRPORTS RECEIVE LESS ENTITLEMENT FUNDS IN EXCHANGE FOR FAA RECEIVING MORE DISCRETIONARY FUNDS TO ALLOCATE FOR PROJECTS THEY DEEM CRITICAL. FAA'S PROPOSAL TO CONVERT ENTITLEMENT FUNDS INTO DISCRETIONARY FUNDS WILL HAVE A SIGNIFICANT NEGATIVE IMPACT ON THE NATION'S SMALLER PRIMARY AIRPORTS WHICH DEPEND ON THE MINIMUM $300,000 ANNUAL ENTITLEMENT. WE URGE THIS SUBCOMMITTEE NOT TO TAKE ACTION ON FAA'S REQUEST BUT INSTEAD WORK TO APPROPRIATE THE FULL AUTHORIZED LEVEL OF $1.7 BILLION FOR AIRPORT GRANTS.

AIRPORT CAPACITY

AS ALREADY STATED, THE PROBLEM OF AIRPORT CAPACITY CONTINUES TO BE ONE OF THE MOST SERIOUS FACING THE AVIATION INDUSTRY.

ACCORDING TO THE FAA, SOME 20 MAJOR AIRPORTS NOW FACE SEVERE CAPACITY CONSTRAINTS. BARRING SIGNIFICANT LEVELS OF NEW CAPACITY, THE NUMBER OF CAPACITY CONSTRAINED AIRPORTS IS EXPECTED TO GROW TO 40 BY THE YEAR 2000. THE COST OF DELAYS IS NOW ESTIMATED AT $3 BILLION TO $4 BILLION PER YEAR.

NEARLY EVERY FAA APPROPRIATION CATEGORY THIS COMMITTEE HAS JURISDICTION OVER HAS SOME IMPACT ON CAPACITY. AND AAAE IS GRATEFUL TO THIS COMMITTEE FOR ITS PAST SUPPORT THROUGH INCREASED APPROPRIATIONS AND EMPHASIS ON THE FAA CAPACITY RELATED WORK. ONCE AGAIN, WE WOULD ASK THE COMMITTEE TO SUPPORT ONGOING CAPACITY ENHANCEMENT INITIATIVES BY EARMARKING SPECIFIC FUNDS IN THE POLLOWING THREE BUDGET CATEGORIES:

RESEARCH AND DEVELOPMENT

$8.0 MILLION--COMPLETION OF DEVELOPMENT, INSTALLATION, DEMONSTRATION, PROCEDURE DEVELOPMENT AND VALIDATION OF HIGH DATA RATE AND MEDIUM DATA RATE SENSOR SYSTEMS FOR CLOSELY SPACED PARALLEL AND CONVERGING RUNWAY REDUCED MINIMUMS OPERATIONS.

$4.0 MILLION--AIRSPACE PROCEDURE DEVELOPMENT, SIMULATION, VALIDATION AND DEMONSTRATION FOR TRIPLE/QUADRUPLE

RUNWAY SIMULTANEOUS OPERATIONS, REDUCED MINIMUMS CONVERGING OPERATIONS, WET-RUNWAY REDUCED MINIMUMS OPERATIONS, ESTABLISHMENT OF CRITERIA AND SPECIFIC ACHIEVABLE MINIMUMS BENEFITS FROM MICROWAVE LANDING SYSTEM (MLS) PRECISION CURVED/SEGMENTED APPROACHES AND DEPARTURES.

$8.0 MILLION--DEVELOPMENT AND VALIDATION OF TERMINAL AUTOMATION TOOLS FOR EARLIEST POSSIBLE STAGE BY STAGE IMPLEMENTATION OF A TERMINAL OPERATIONS PLANNER, BY 1992.

$4.0 MILLION--REDUCTION OF THE CAPACITY REDUCING IMPACT OF WAKE VORTICES, THROUGH DEVELOPMENT OF AUTOMATIC DYNAMIC SPACING ADAPTATION, DEVELOPMENT AND VALIDATION OF WAKE VORTEX DETECTION AND AVOIDANCE SENSORS AND RENEWED EFFORTS AT ELIMINATION OF WAKE VORTICES AT THE AIRCRAFT SOURCE.

$2.0 MILLION--SIMULATION MODEL DEVELOPMENT AND VALIDATION.

$0.4 MILLION--DEVELOPMENT AND VALIDATION OF MINIMUM PERFORMANCE STANDARDS AND PROCEDURES FOR SAFE USE OF COCKPIT TRAFFIC DISPLAYS IN TERMINAL OPERATIONS.

$1.2 MILLION--AIRPORT VISUAL CONTROL (LIGHTING) TO PERMIT EFFICIENT TAXIWAY EXIT OPERATIONS, DEVELOPMENT, VALIDATION AND PROCEDURE DEVELOPMENT FOR STOP BARS AND HOLD-SHORT SYSTEMS FOR RUNWAY ENTRANCES AND ENDS.

$4.0 MILLION--AIRPORT SURFACE TRAFFIC AUTOMATION, UTILIZING EARLIER RESEARCH AND DEVELOPMENT TO DEVELOP AND DEMONSTRATE AN AIRPORT SURFACE SURVEILLANCE, GUIDANCE AND CONTROL SYSTEM, IMPLEMENTABLE IN STEPS AND USING THE TECHNOLOGIES USED IN THE AIRSPACE SYSTEM WHERE PRACTICAL.

$1.5 MILLION--AIRPORT CAPACITY ENHANCEMENT PLANNING AND ANALYSIS.

$4.0 MILLION--AIRPORT RELATED RESEARCH AND DEVELOPMENT (R&D) FOR DESIGN EVALUATION AND TESTING OF AIRPORT PAVEMENT, NON-DESTRUCTIVE TEST METHODS, RUNWAY FRICTION MEASUREMENT CRITERIA, RUNWAY RUBBER REMOVAL AND FRICTION RETENTION METHODS, IMPROVED JOINT AND FIXTURE SEALANTS AND OTHER PAVEMENT MAINTENANCE TECHNIQUES, SIGNAGE, MARKING AND LIGHTING STANDARDIZATION AND CRITERIA FOR RUNWAY/TAXIWAY SURFACE ROUGHNESS.

FINALLY, WE WOULD URGE THE COMMITTEE TO DIRECT THE FAA TO GIVE SPECIAL ATTENTION TO FINDING WAYS TO USE CURRENTLY UNDERUTILIZED PRIMARY COMMERCIAL AIRPORTS TO RELIEVE CONGESTION AT MAJOR HUBS. THE AGENCY HAS IDENTIFIED, IN ITS AIRPORT CAPACITY ENHANCEMENT PLAN, SEVERAL POTENTIAL NEW CONNECTING HUBS WHICH ARE STRATEGICALLY LOCATED TO RELIEVE CONGESTION IN THE VERY NEAR FUTURE AT LARGER AIRPORTS. UNFORTUNATELY, THE FAA HAS NOT AGGRESSIVELY PURSUED THE DEVELOPMENT AND MARKETING OF THESE UNDERUTILIZED FACILITIES. NOR HAS THERE BEEN A CAREFUL

ASSESSMENT OF THE WILLINGNESS OF THE NATION'S AIRLINES TO SUPPORT SUCH A STRATEGY FOR CAPACITY ENHANCEMENT.

ACCORDINGLY, WE WOULD ASK THAT THE COMMITTEE DIRECT THE FAA, THROUGH ITS AIRPORT CAPACITY PROGRAM OFFICE TO UNDERTAKE SUCH STUDIES OF AIRPORTS THAT DO OFFER THIS POSSIBILITY TO DETERMINE THE FEASIBILITY OF DEVELOPING AND MARKETING THESE POTENTIAL NEW CONNECTING HUB AIRPORTS AS YET ANOTHER MEANS OF INCREASING CAPACITY.

FACILITIES AND EQUIPMENT

AAAE FULLY SUPPORTS THE FAA'S FACILITIES AND EQUIPMENT REQUEST OF $1.955 BILLION, REALIZING THAT THE FREQUENTLY MENTIONED "BOW WAVE" OF FUNDING REQUIREMENTS FOR THE NATIONAL AIRSPACE SYSTEM (NAS) PLAN IMPLEMENTATION HAS ARRIVED, BUT ALSO RECOGNIZING THAT THESE NAS IMPROVEMENTS ARE LONG OVERDUE AND ABSOLUTELY ESSENTIAL.

SPECIFICALLY WITH REGARD TO CAPACITY, AAAE URGES THE COMMITTEE TO UNDERSCORE ITS PAST SUPPORT FOR THE DEVELOPMENT OF A NEW AIRPORT SURVEILLANCE SYSTEM BEING DEMONSTRATED AT THE RALEIGH-DURHAM N.C. AIRPORT. WE WOULD URGE THE COMMITTEE TO EARMARK $16 MILLION FOR THE FIRST INSTALLMENT OF A $50 MILLION REQUIREMENT TOWARD PRODUCING TEN QUICK-SCAN AIRPORT SURVEILLANCE SYSTEMS. BENEFITS ANALYSIS INDICATES THAT THE NEW SYSTEM COULD REDUCE FLIGHT DELAYS SIGNIFICANTLY BY ALLOWING IMPROVED IFR PARALLEL RUNWAY OPERATIONS AT UP TO TEN MAJOR AIRPORTS UTILIZING EXISTING RUNWAY CONFIGURATIONS. WE WOULD URGE THE COMMITTEE TO REQUIRE THE FAA TO PERFORM FURTHER BENEFITS ANALYSIS TO ESTABLISH PRIORITIES FOR INSTALLATION OF THE NEW SYSTEMS REQUIRED AND PROVIDE A REPORT TO THE COMMITTEE REGARDING ITS EFFORTS TO COMPLY WITH THESE REQUIREMENTS.

OPERATIONS APPROPRIATIONS

AGAIN, AAAE FULLY SUPPORTS THE FAA'S OPERATIONS REQUEST AS THE MINIMAL AMOUNT NECESSARY TO CARRY OUT ITS FUNCTIONS. IN THE AIRPORT CAPACITY AREA, WE WOULD URGE THE COMMITTEE TO APPROPRIATE AND EARMARK APPROXIMATELY $5 MILLION OF ADDITIONAL OPERATIONS FUNDING FOR THE AIRPORT CAPACITY PROGRAM OFFICE. THESE FUNDS ARE NECESSARY TO CONTINUE THE APPLICATION OF APPROPRIATE AIRPORT AND SYSTEM ANALYTICAL TOOLS, AND TO SUPPORT AIRPORT-SPECIFIC CAPACITY IMPROVEMENT TASK FORCES. SUCH AIRPORT CAPACITY PLANNING PROJECTS HAVE BEEN COMPLETED AT 13 AIRPORTS AND MORE THAN 200 AIRPORT CAPACITY PROJECTS HAVE BEEN IDENTIFIED INCLUDING NEW RUNWAYS, NEW AIRSPACE PROCEDURES, NEW SYSTEMS AND EQUIPMENT AND OTHER IMPROVEMENTS. MUCH MORE CAN BE ACCOMPLISHED THROUGH THE USE OF THIS APPROACH.

IN ADDITION, THE AIRPORT-AIRSPACE CAPACITY PLANNING PROJECTS HAVE BEEN COMPLETED AT THE FAA BOSTON AND LOS ANGELES AIR TRAFFIC CONTROL CENTERS AND ARE UNDERWAY AT DALLAS-FT. WORTH, CHICAGO AND DENVER. FLIGHT DELAY SAVINGS FROM 18,000 to 39,000 HOURS ANNUALLY ARE FORECAST FROM THE AIRSPACE RESTRUCTURING PROJECTS AT BOSTON AND LOS ANGELES.

AAAE IS HOWEVER, CONCERNED THAT STAFFING IN THE AIRPORTS PROGRAM IS NOT SUFFICIENT TO CONTINUE THIS HIGH LEVEL OF NEEDED ACTIVITY. STAFFING IN THE AIRPORT CAPACITY PROGRAM OFFICE HAS DECLINED SINCE 1986 AND THERE HAS BEEN NO INCREASE IN FIELD STAFFING TO IMPLEMENT AIRPORT CAPACITY ENHANCEMENT ACTIVITIES. AAAE WOULD RECOMMEND THAT THE COMMITTEE DIRECT THE ADMINISTRATOR TO INCREASE THE STAFF OF THE AIRPORT CAPACITY PROGRAM OFFICE BY FOUR POSITIONS AND ALLOCATE AN ADDITIONAL 23 POSITIONS TO THE FAA REGIONS BASED ON THE NUMBER OF CAPACITY CONSTRAINED AIRPORTS IN EACH REGION.

IN ADDITION, WE BELIEVE THE EFFECTIVENESS OF THE AIRPORT CAPACITY PROGRAM OFFICE WOULD BE GREATLY ENHANCED WERE IT TO

REPORT TO THE EXECUTIVE DIRECTOR FOR SYSTEM DEVELOPMENT. AS THIS COMMITTEE KNOWS, THE INDUSTRY WAS QUITE PLEASED WITH THE CREATION OF THIS OFFICE AT A LEVEL WITHIN THE FAA STRUCTURE THAT INSURED THAT IT WOULD BE EFFECTIVE IN ELICITING THE CLOSE COOPERATION BETWEEN AIR TRAFFIC, FLIGHT STANDARDS AND AIRPORTS THAT IS THE INEVITABLE REQUIREMENT OF ANY SUCCESSFULLY EXECUTED CAPACITY ENHANCEMENT PROJECT. AS A RESULT OF SUCCESSIVE FAA REORGANIZATIONS, THE OFFICE IS NOW SUBMERGED THREE RUNGS BELOW THE ADMINISTRATOR--HARDLY AN APPROPRIATE POSITION FOR THE FAA ELEMENT CHARGED WITH ADDRESSING SUCH AN IMPORTANT NATIONAL PROBLEM. THEREFORE WE WOULD URGE THE COMMITTEE TO DIRECT THE FAA TO EFFECT THIS CHANGE IN THE CHAIN OF COMMAND.

AIRPORT SECURITY

AIRPORT EXECUTIVES ARE SERIOUSLY CONCERNED ABOUT THE RECENT FAA SECURITY RULE REQUIRING 269 U.S. AIRPORTS TO INSTALL COMPUTERIZED ACCESS DOOR SYSTEMS AT ALL AREAS LEADING TO AIRCRAFT OPERATION AREAS. AAAE SHARES WITH CONGRESS AND THE FAA THE GOAL OF ENHANCING SECURITY THOUGH CONTROLLING ACCESS TO SECURED AREAS OF AIRPORTS. HOWEVER, THERE ARE A NUMBER OF UNANSWERED QUESTIONS THAT WE BELIEVE WILL EVENTUALLY UNDERMINE THE INTENT AND EFFECTIVENESS OF THE PRESENT REGULATION. TO RESOLVE MANY OF THESE QUESTIONS, AAAE AND OTHER INDUSTRY GROUPS CONTINUE TO BELIEVE THAT A FEDERALLY FUNDED DEMONSTRATION PROGRAM SHOULD BE ESTABLISHED BEFORE HUNDREDS OF AIRPORTS ARE FORCED TO INSTALL UNTESTED SECURITY SYSTEMS. THE EXPERIENCE GAINED FROM THIS TEST WOULD SUPPLY ALL PARTIES -- AIRPORTS OPERATORS, AIRLINES, OTHER TENANTS, AND THE FAA -- WITH VALUABLE EXPERIENCE ABOUT THE DESIGN, INSTALLATION, OPERATION, COMPATIBILITY, AND MONITORING OF AIRPORT ACCESS SYSTEMS. ADDITIONALLY, WE BELIEVE THAT FAA, IN ISSUING THE FINAL REGULATION, HAS FAILED TO RECOGNIZE THE IMPORTANCE OF AIRPORT TENANT RESPONSIBILITY FOR SECURITY OF AIR OPERATIONS AREA. ANY EFFECTIVE SECURITY SYSTEM MUST FORCE INDIVIDUAL TENANTS OF AN AIRPORT -- AIRLINES, FIXED BASED

OPERATORS, AIR CARGO COMPANIES -- TO BE ULTIMATELY RESPONSIBLE AND ACCOUNTABLE FOR THE SECURITY OF THEIR EXCLUSIVE AREAS.

CRITICAL TO THE SEARCH FOR EFFECTIVE SECURITY SYSTEMS IS THE ISSUE OF FUNDING. SIMPLY STATED, CONGRESS MUST PROVIDE DEDICATED FUNDING FOR THESE NEW SECURITY SYSTEMS OUTSIDE THE REGULAR AIRPORT IMPROVEMENT PROGRAM. THE INDUSTRY ESTIMATES THAT THESE COMPUTERIZED SYSTEMS COULD COST TAXPAYERS AS MUCH AS $900 MILLION OVER THE NEXT TEN YEARS. IN FACT, THE COSTS COULD SOAR OVER $1 BILLION CONSIDERING THAT THE FINAL RULE ENCOMPASSES ALL BUILDINGS AT AN AIRPORT, NOT JUST THE TERMINAL FACILITY, AS PROPOSED IN THE ORIGINAL NPRM.

IN LIGHT OF INADEQUATE AIP APPROPRIATIONS IN RECENT YEARS, CONGRESS MUST PROVIDE DEDICATED MONIES ABOVE AND BEYOND CURRENT GRANT LEVELS SO AIRPORTS ARE NOT FORCED TO FOREGO CRITICAL SAFETY- AND CAPACITY-RELATED PROJECTS. IF "NEW" MONEY IS NOT MADE AVAILABLE FOR THESE IMPORTANT MEASURES, THEN IT IS IMPERATIVE THAT CONGRESS WORK WITH THE AVIATION INDUSTRY TO EXPLORE OTHER FINANCING ALTERNATIVES, SUCH AS A SECURITY SURCHARGE SIMILAR TO THAT IMPOSED BY THE CIVIL AERONAUTICS BOARD IN THE EARLY 1970'S TO PAY FOR MAGNETOMETERS AND X-RAY MACHINES.

THE BOTTOM LINE HOWEVER, IS THAT WE MUST REMEMBER THAT TERRORIST ACTS ARE DIRECTED NOT AT U.S. AIRPORTS OR AIR CARRIERS, BUT RATHER AT THE AMERICAN GOVERNMENT. IT IS FOR THAT REASON THAT OUR GOVERNMENT MUST TAKE A MORE PROACTIVE ROLE IN RESPONDING TO SECURITY RISKS AND DEVELOPING AND FINANCING EFFECTIVE SECURITY MEASURES THAT WILL MEET THE THREAT. AVIATION PROFESSIONALS ARE IN THE BUSINESS OF TRANSPORTING PASSENGERS, AND ARE ILL-EQUIPPED AT FIGHTING TERRORISM.

OFF-AIRPORT USER FEES

LEGISLATION, SUPPORTED BY OFF-AIRPORT CAR RENTAL COMPANIES, RESTRICTING AN AIRPORT'S ABILITY TO CLASSIFY AND CHARGE DIFFERENTLY OFF-AIRPORT BUSINESSES, WAS INTRODUCED IN THE 100TH CONGRESS. EVEN THOUGH THE LEGISLATION WAS DEFEATED, IT IS EXPECTED THAT SIMILAR LEGISLATION WILL BE RE-INTRODUCED DURING THE 101ST CONGRESS.

WE URGE THIS COMMITTEE TO OPPOSE SUCH LEGISLATION. ALL AIR CARRIER AIRPORTS ARE OWNED AND OPERATED BY STATE AND LOCAL GOVERNMENTS AND SEEK TO BE SELF-SUPPORTING SO THAT THEY DO NOT BURDEN THE LOCAL TAXPAYERS. FEDERAL LAW, IN FACT, REQUIRES AIRPORTS TO CHARGE SUFFICIENT FEES AND RENTALS FOR THE FACILITIES AND SERVICES PROVIDED AIRPORT USERS TO MAKE THE AIRPORT SELF-SUPPORTING.

AT THE THIRTY LARGEST AIRPORTS, CAR RENTAL REVENUES EXCEED GRANT FUNDS DERIVED FROM THE AIRPORT IMPROVEMENT PROGRAM. THIS LEGISLATION, THEREFORE WOULD THREATEN A MAJOR REVENUE SOURCE FOR PUBLIC AIRPORTS. AIRPORTS, AS WE HAVE ALREADY STATED, FACE MAJOR CAPACITY AND SAFETY CHALLENGES AND IT IS ESSENTIAL THAT AIRPORT OPERATORS NOT BE LIMITED IN THEIR ABILITY TO APPROPRIATELY ALLOCATE ACCESS WHILE THEY RAISE REVENUES TO FINANCE BILLIONS OF DOLLARS IN AIRPORT SAFETY, SECURITY AND CAPACITY IMPROVEMENT PROJECTS.

TO THE EXTENT THAT THIS LEGISLATION WOULD PREVENT AIRPORTS FROM RECOVERING OFF-AIRPORT COMPANIES' SHARE OF THE COSTS AND BENEFITS OF AIRPORT FACILITIES, COSTS WILL BE SHIFTED UNFAIRLY FROM ONE GROUP OF AIRPORT CUSTOMERS TO ANOTHER, RESULTING IN A SUBSIDY FOR A SPECIAL GROUP OF OFF-AIRPORT BUSINESSES.

ESSENTIAL AIR SERVICE

AS PART OF THE 1978 AIRLINE DEREGULATION ACT, SMALL COMMUNITIES THROUGHOUT RURAL AMERICA RECEIVED A PLEDGE THAT THEY WOULD NOT BE LEFT OUT OF THE NATIONAL AIR TRANSPORTATION SYSTEM. CONTRARY TO THE VIEWS OF MANY, THE STATED INTENT IN THE ACT WAS TO PROVIDE A GUARANTEED PERIOD AGAINST EXIT TO ACCOMMODATE THE CONCERNS OF SMALL COMMUNITIES FROM THE TRANSITION OF REGULATION TO DEREGULATION AND TO PROVIDE "THE MAINTENANCE OF A COMPREHENSIVE AND CONVENIENT SYSTEM OF CONTINUOUS SCHEDULED AIRLINE SERVICE FOR SMALL COMMUNITIES AND FOR ISOLATED AREAS, WITH DIRECT FEDERAL ASSISTANCE WHERE APPROPRIATE".

UNFORTUNATELY, THE ADMINISTRATION IS IGNORING THE INTENT OF THE AIRLINE DEREGULATION ACT AND IS PROPOSING A LESS THAN "KIND AND GENTLE" RURAL TRANSPORTATION SYSTEM IN ITS CALL FOR TOTAL ELIMINATION OF THE ESSENTIAL AIR SERVICE (EAS) PROGRAM. THE ADMINISTRATION CONTINUES TO JUSTIFY THE ELIMINATION OF THE EAS PROGRAM BY CITING THE NEED TO REDUCE THE FEDERAL DEFICIT.

SMALL COMMUNITIES WILL TELL YOU THAT THEY HAVE EXPERIENCED MORE THAN THEIR FAIR SHARE IN THE BURDEN OF THE GOVERNMENT'S EFFORTS TO REDUCE THE FEDERAL DEFICIT. MANY OF THE 150 COMMUNITIES STILL RECEIVING SUBSIDIZED AIR SERVICE HAVE NO OTHER MEANS OF PUBLIC TRANSPORTATION -- NO BUS AND NO RAIL. THE ESSENTIAL AIR SERVICE PROGRAM IS THEIR LIFELINE TO THE REST OF THE COUNTRY, BOTH ECONOMICALLY AND SOCIALLY.

IN 1987, AS PART OF THE AIRPORT AND AIRWAY SAFETY AND CAPACITY EXPANSION ACT, CONGRESS RECOGNIZED THE IMPORTANCE OF SMALL COMMUNITY AIR SERVICE WHEN THEY REAUTHORIZED THE EAS PROGRAM FOR AN ADDITIONAL TEN YEARS. COMMUNITIES THAT WERE LISTED ON AN AIRLINE'S OPERATING CERTIFICATE ON THE DATE OF ENACTMENT OF THE 1978 AIRLINE DEREGULATION ACT CONTINUE TO BE ELIGIBLE FOR ESSENTIAL AIR SERVICE. THE ONLY EXCEPTION ARE THOSE COMMUNITIES THAT ARE WITHIN 45 MILES OF A NEARBY MEDIUM OR LARGE HUB, THOSE

WHOSE SERVICE WAS SUSPENDED AND NEVER RESTARTED, AND THOSE WHO GAVE UP THEIR EAS ELIGIBILITY.

ADDITIONALLY, THE NEW REAUTHORIZATION LAW ALLOWS TWO WAYS (A COST-SHARING OPTION AND A USE-OR-LOSE OPTION) FOR AN EAS COMMUNITY TO ENHANCE ITS SERVICE WITH THE GOAL OF BECOMING "SUBSIDY-FREE". HOWEVER, THE DEPARTMENT OF TRANSPORTATION (DOT) HAS YET TO ISSUE IMPLEMENTING REGULATIONS FOR THESE NEW PROGRAMS, PRIMARILY BECAUSE DOT HAS YET TO RECEIVE AN ADEQUATE FISCAL YEAR APPROPRIATIONS.

INSTEAD, DOT HAS ISSUED A NOTICE THAT ALL COMMUNITIES CURRENTLY RECEIVING SUBSIDIZED AIR SERVICE WILL LOSE THEIR AIR SERVICE BY EARLY JULY DUE TO THE LOW APPROPRIATIONS MADE AVAILABLE FOR THIS FISCAL YEAR. THEREFORE WE URGE THE COMMITTEE TO SUPPORT AN FY 1989 EMERGENCY SUPPLEMENTAL APPROPRIATIONS FOR AT LEAST $6.6 MILLION. THIS AMOUNT, IN ADDITION TO THE $25 MILLION ALREADY APPROPRIATED, WILL GUARANTEE THAT THE EAS PROGRAM CONTINUE WITHOUT LOSS OF SERVICE, BUT WOULD NOT FUND ANY NEW "ENHANCED" AIR SERVICE AS DIRECTED BY CONGRESS IN THE 1987 EAS REAUTHORIZATION LAW.

FOR FISCAL YEAR 1990, WE URGE THE COMMITTEE TO APPROVE AN EAS BUDGET OF $46 MILLION SO THAT THE NEW PROGRAM CAN BE FULLY IMPLEMENTED. (DOT ESTIMATES THAT $33.2 MILLION WILL BE NEEDED IN FY 1990 TO OPERATE THE CURRENT PROGRAM AND THAT ANOTHER $12.8 MILLION WOULD BE REQUIRED FOR THE ENHANCED SERVICE PROVISIONS.) GIVEN THE RECENT IMPROVEMENTS IN MODERN COMMUTER AIRCRAFT AND AN ADEQUATE BUDGET, WE ARE OPTIMISTIC THAT THE PROGRAM CAN LEAD TO BETTER SERVICE AT SMALL COMMUNITIES, HIGHER PASSENGER LEVELS, AND ULTIMATELY THE REDUCTION AND PERHAPS EVEN THE ELIMINATION OF SUBSIDY AT MANY POINTS.

WE RECOGNIZE THE DIFFICULTY OF A REQUEST TO CONGRESS FOR FEDERAL DOLLARS. HOWEVER, THE SMALL COMMUNITIES AIR SERVICE PROGRAM'S COST HAS DECREASED CONSIDERABLY SINCE [illegible] 1978 ACT. IN 1979, 383

COMMUNITIES RECEIVED SUBSIDIZED AIRLINE SERVICE COSTING THE FEDERAL GOVERNMENT APPROXIMATELY $80 MILLION. IN 1981, SUBSIDY CLIMBED TO $108 MILLION. TODAY, LESS THAN HALF OF THESE COMMUNITIES RECEIVE SUBSIDIZED AIR SERVICE (ALMOST ONE-FOURTH OF THESE COMMUNITIES ARE LOCATED IN ALASKA) AT LESS THAN $31 MILLION ANNUALLY.

CONTRACT TOWER PROGRAM

FOR THE PAST SEVEN YEARS, THE FAA HAS CONTRACTED TO THE PRIVATE SECTOR, THROUGH LOCAL GOVERNMENTS, AIR TRAFFIC CONTROL SERVICES AT A NUMBER OF SELECTED LOW ACTIVITY LEVEL I VFR AIRPORTS. THE PROGRAM HAS RECEIVED GREAT REVIEWS FROM ALL INVOLVED, INCLUDING THE FAA, LOCAL GOVERNMENTS, AND THE USERS OF THE AVIATION SYSTEM. TO DATE, A TOTAL OF 16 AIRPORTS ARE PARTICIPATING IN THE PROGRAM AT AN ANNUAL SAVINGS TO THE FAA OF APPROXIMATELY $2 MILLION. IT IS A SHINING EXAMPLE OF HOW THE FAA AND LOCAL GOVERNMENTS CAN COOPERATE TO PROVIDE A NEEDED SERVICE TO AVIATION USERS AT A SUBSTANTIALLY REDUCED COST TO THE TAXPAYERS. AAAE ENCOURAGES YOUR SUBCOMMITTEE TO CONTINUE PROVIDING THE LEADERSHIP NECESSARY TO EXPAND THIS IMPORTANT PROGRAM TO OTHER QUALIFIED AIRPORTS.

AIRPORT CERTIFICATION

THE RECENTLY REVISED AIRPORT CERTIFICATION PROGRAM (FAR PART 139) RELIES HEAVILY ON THE AIRPORT OPERATOR TO ACCOMPLISH VOLUNTARY COMPLIANCE WITH THE REGULATION. WE UNDERSTAND FAA IN ITS 1990 BUDGET HAS REQUESTED $350,000 FOR TRAINING TOOLS TO ASSIST AIRPORTS IN SATISFYING THE CHANGES IN THE AIRPORT CERTIFICATION REGULATION. FUNDING OF THIS REQUEST WILL PROMOTE NON-REGULATORY PRACTICES AND PROGRAMS TO ENHANCE SAFETY AT HUNDREDS OF AIRPORTS ACROSS THE COUNTRY BY EDUCATING AIRPORT EXECUTIVES ABOUT CRITICAL AIRPORT SAFETY MEASURES SUCH AS PROGRAMS TO PREVENT RUNWAY INCURSIONS AND AIRPORT SELF INSPECTION

PROCEDURES. AAAE URGES THE SUBCOMMITTEE TO APPROVE THIS REQUEST SO THAT OUR MUTUAL AIRPORT SAFETY GOALS CAN BE ACHIEVED. WE ALSO ASK THAT THE SUBCOMMITTEE SUPPORT FAA'S PLAN TO ADD NEW AIRPORT CERTIFICATION INSPECTORS. THESE ADDITIONAL INSPECTORS WILL ASSIST THE FAA IN HANDLING MORE EFFECTIVELY THE EXPANDED CERTIFICATION PROGRAM.

NATIONAL AIR TRAFFIC CONTROLLERS ASSOCIATION

STATEMENT OF R. STEVE BELL, PRESIDENT

The National Air Traffic Controllers Association, AFL-CIO (NATCA) welcomes the opportunity to submit for the hearing record its views on the FAA's (the Agency) FY 1990 budget request. I will devote the majority of my remarks to the Operations Appropriation.

However, I would first like to comment briefly on the recent action taken by the House Appropriations Committee to curtail funding for the Pay Demonstration Project (Project) as contained in the FAA's FY 1989 Supplemental.

NATCA appreciates many of the concerns expressed by both the full Committee and the Subcommittee on Transportation, especially those raised by Rep. Lehman on the potentially divisive nature of the plan. His sense of fair play is commendable. NATCA is also most grateful for the additional $35 million that the Committee appropriated for hiring additional personnel. In years to come, it will help the Air Traffic Control System. However, the problem we have is immediate and of significant consequence to the safety of the ATC System.

Last winter, NATCA testified at the Office of Personnel Management's hearing on the Project. We stated at the time that although we would have preferred a more encompassing approach to attracting and retaining qualified personnel at hard-to-staff facilities, we believed that the Pay Demonstration Project was a good beginning.

NATCA's decision to support the Pay Demonstration Project was not met with universal acclaim. Some of our members were highly disappointed that they were not included in the Project. I am sure that many of them wrote to you and other members of this subcommittee expressing their dissatisfaction.

However, the union's view was and continues to be that something dramatic must to be done in the short run to assist these hard-to-staff facilities. Afterwards, we should examine ways to reform the current pay system to provide adequate and fair compensation for all Controllers.

The tragedy in cutting the Pay Demonstration Project is that the Project was working so well. I have a few examples. Typically, the New York TRACON was forced to go directly to the FAA Academy to get Developmental Controllers which resulted in a very high washout rate and a persistent staffing problem. However, according to NATCA's Eastern Region Representative, the TRACON accepted 20 qualified applicants during the last quarter; seven came from LaGuardia and five from Kennedy. The New York Center received three new bids; it had never received any in the past.

Our facility representative at O'Hare also reports a dramatic increase in bids. From September 1987 to September 1988, O'Hare TRACON and Tower received 41 bids. In November and December, 1988 the combined facility received 42 bids which is more than the entire yield from the previous year. On the West Coast, our LAX representative states that because of the Project, 13 Controllers have been added in the past six months and many others have not bid out because of it. The normal bid at LAX is four to 10 Controllers to an opening; the last bid of 39 Controllers was a record. In addition, LA TRACON had eight openings and eight bidders -- all in the GS-14 range. This is the most qualified list in years.

To date, there is proof that the Project can attract qualified Controllers. However, we must also ensure the Project's five-year life span to make certain that it can retain these individuals.

To say the least, the Controllers who have now been cut out of the Project are very confused and bitter. They feel they were misled by the FAA. However, they hope that something -- even at this late hour -- can be done to revive the Pay Demonstration Project or that someone will come up with a plausible alternative.

If not, I believe we will continue to see a drain of talent at the affected facilities with a corresponding effect on safety and a growing inability to meet increased traffic demands. I do not believe we can afford to wait any longer. NATCA offers whatever assistance it can to reach a mutually satisfactory solution.

NATCA's opinion of the FAA's FY 1990 budget request is mixed. The FAA recognizes that it needs more Controllers. This new found awareness is refreshing compared to a few years ago when the Congress practically had to force feed Controllers to the Agency. The FAA is also making slow but steady progress toward rebuilding the ATC system. This a great tribute to the men and women of the Agency and to the recent stewardship of T. Allan McArtor.

However, the FAA would have the public believe that it has rebuilt the work force to pre-1981 strike levels. This is not true. The only way the Agency could claim to have reached the much ballyhooed 16,000 mark is to include supervisors and staff specialists who barely spend more than 10 percent of their time controlling traffic. The FAA still lags behind in Full Performance Level Controllers (FPLs). By last reckoning, there are 9,633 FPLs compared to the more than 12,000 before the strike.

NATCA is aware that some Members of Congress are uncomfortable about using the FPL number as a bench mark or indicator of the strength of the system. They contend that at times it is misused by members of the media and is often misunderstood by the general public. To some extent, these criticisms are valid. However, NATCA has strong misgivings regarding the FAA's recent suggestion to use "Operational Controller" in place of FPL.

For the past four years, the FAA has been playing loose with both semantics and staffing numbers. Let us not forget the days when the Agency was counting practically everything that moved as being part of the "work force." The FAA also changed the way that near mid-air reports were validated, and as a result, the Agency's credibility suffered.

I find it interesting that as the Agency is unable to meet congressionally mandated FPL numbers -- numbers that were suggested by DoT and FAA -- that they want yet again to change terminology. In addition, the strong likelihood that the Agency will be over 3,000 FPLs short of its mandated goal cannot be attributed solely to Controllers losing their FPL status when they move up to a new facility. If that was the case, the ATC system would resemble a large game of musical chairs.

Perhaps there is a better indicator than FPL. The FAA contracted-out study failed to come up with one and now the Agency will be starting over from square one with an in-house study. NATCA still believes that the FPL is both a valid evaluation of experience and expertise, and of the strength of the system. Until the day when the FAA, the Congress and the users of the system are comfortable with a new way to measure how to meet ATC demands, it would seem prudent to stick with the FPL gauge.

The question then is, "Do we have enough Controllers?" The answer is still no. Unfortunately, NATCA is not privy to all of

the information and raw data that the FAA uses to determine aviation growth and staffing standards. However, last fall, NATCA obtained through a labor relations agreement with the FAA, a list showing staffing levels at some sixty ATC facilities which we believed were short staffed. The document showed that the number of FPL Controllers actually working at the facilities was far less than the number authorized by the FAA. I would not be surprised if this shortage of qualified personnel was even more common, and we hope that the Subcommittee will keep a close eye on the imbalance.

So how many would be enough Controllers? The 695 contained in the FY 1990 budget request still appears to be short. We want more, but we are also aware that the FAA Academy, as it is now structured, can only handle so many trainees. The FAA's long-term recruitment and training plans as outlined by Mr. McLure are most promising but do little to alleviate present workload. We must look at ways to utilize better the human resources we now have.

One approach would involve a cyclical career path for Air Traffic Controllers. A Controller in today's system follows what could be best described as an "up and out" route. Typically, the Controller moves or "bids" from a lower up to a higher density facility and finally retires or tries to secure a management position. From our observations, due to stress, morale and working conditions, there are also more Controllers taking advantage of the first opportunity to retire. This is a terrible loss of expertise and experience.

NATCA has suggested to the FAA, and with little success, a program where these highly-experienced Controllers would have another option. After a certain number of peak performance years at a high density facility, they could move down to a slower facility and help train the new crop of Controllers moving up through the system.

The FAA is placing a lot of stock in simulators, and they are a valuable teaching tool but, in our opinion, nothing will replace on-the-job-training. In addition, NATCA cannot understand the logic of contracting out training to retired FAA personnel when you have the best teachers in house. While they might not wish to take any longer the rigorous traffic at a Level V TRACON or Level III Center, they are more than capable instructors.

Another area of great concern to NATCA's members is the implementation of modernization projects under the NAS plan. The FAA has a very poor history when it comes to bringing new equipment and procedures on line. The work force is worried especially in view of the extremely short notification afforded Controllers of the expanded East Coast Plan and the numerous problems we experienced when the ARTS 3.03 Program and other terminal automation enhancements were introduced.

In the first case, very little thought was given to training, workload and the ability to provide full service to all system users. In the latter, NATCA's Safety Committee at the Dallas Fort Worth TRACON found that the ARTS program and the radar were not performing at an acceptable level and that training was sub-par. They were experiencing unexpected losses of data, "coasting" of targets, losses of radar and altitude, and many other glitches.

After extensive discussion with local management and a host of experts, the Safety Committee released an extensive and well documented report and filed two Unsatisfactory Condition Reports with the agency. We have since discovered that the problems with the ARTS 3.03 and ASR-8 Radar encountered at DFW also exist at other FAA facilities, such as O'Hare. Fortunately, after much hard work, the problem at DFW has been corrected.

It is clear that these problems should have been identified and fixed before the systems were deployed in the field. If the FAA is correct that more NAS projects are ready to be delivered, are we going to be confronted with the same type of flaws we have had with previous "state-of-the-art" equipment? If so, and if there is not a smooth transition from one system to another, we are in for trouble. Controllers will not be able to handle safely the present workload let alone predicted growth in air traffic. We wholeheartedly concur with the GAO that it is critical that the FAA identify as soon as possible -- especially at the regional level -- its implementation staffing needs and then stick to those figures.

NATCA and its National Safety Committee are also interested in the safety implications of some broad issues and specific programs contained in the proposed FAA FY 1990 budget. We would hope that close attention is paid to whether they have the potential to improve the safety and efficiency of the Air Traffic Control system or whether they could be deleterious:

1) **The Office of Aviation Safety's System Safety Indicators Program.** Unfortunately, the Agency does not seem to be taking into consideration such important factors as work load, training and performance.

2) **Aviation Weather Programs.** We have to take a hard look at the entire gamut which includes Flight Service Station Automation, color weather radar graphics for ARTCC personnel, NWS weather observation contracts, terminal Controllers taking weather observations, Automated Weather Observation System (AWOS), and Next Generation Radar (NEXRAD). We are particularly concerned with the Controllers at 15 Level I and II terminals who are taking weather which disrupts their primary duty of separating traffic (Attachment A.) One alternative would be to shift this duty to where it belongs -- the National Weather Service. The cost of shifting this work is estimated to be $1.5 million.

3) **Human Factors.** The FAA was very slow to pick up on this important R&D effort but is now mandated to do so under the Aviation Safety Research Act. We hope that the Subcommittee keeps a close eye on the Human Factors Coordinating Committee.

4) **Staffing Standards.** We need a national perspective and assessment of current and future programs to determine realistic staffing requirements and criteria. Specific funding for these initiatives was not identified as part of the FAA's budget request.

5) **Controller Automation Training Programs.** With new systems coming on line, NATCA's concerns continue to mount regarding the adequacy, scope, nature, duration and regularity of Controller training.

6) **System Specialists.** NATCA is apprehensive of FAA's FAA's penchant for contracting out the work now being done by system specialists. We have witnessed first hand the fiascos of contracting out and do not want to see the integrity and safety of the system compromised by further slashing of that work force and an increased reliance on very unreliable contracting out. Rather, the FAA should be striving to rebuild this close-to-decimated work force.

One final point involves not the FAA, but an agency which we believe is crucial to aviation safety and which falls under the Subcommittee's jurisdiction. I am speaking of the National

Transportation Safety Board. Of late, I have heard alarming reports about plummeting morale and staffing problems at the Board due in large measure to low funding. The April 1st edition of Aviation Safety painted a particularly bleak and alarming picture of the state of the NTSB.

NATCA has enormous respect for the Board, its members and staff and their ability to examine and make recommendations on critical safety issues. When the Department of Transportation was claiming that there were only minor problems with a very troubled ATC system, the NTSB provided an excellent counterpoint in fact and reason. I do not believe that we would have made the progress we have to date in rebuilding the system without the critical attention given by the NTSB. The Air Traffic Controllers of the nation hope that the Congress will fund the Board at a level commensurate with its broad and serious mission.

In conclusion, NATCA believes that the FAA is making some progress, albeit plodding progress, towards rebuilding the Controller work force and bringing the NAS Plan to fruition. We are concerned, however, by the challenges confronting the Agency. We have already encountered numerous problems in training and implementation in these early stages of the NAS Plan where the going has been relatively easy.

The hard road lies ahead and strategic planning, preparation and training have never been the FAA's strong suit. These billion dollar investments in sophisticated hardware will be for nought if we do not have enough qualified, trained and experienced personnel to operate it. NATCA is worried that this challenge is taking a back seat to the FAA's technological plans for the future. The success of the NAS Plan will rest on whether the FAA is able to bring Controllers and the new technology together in harmony. NATCA is committed to working as partners with Congress, the FAA and the aviation community to meet this challenge and make the ATC System safer and more efficient.

NATIONAL AIR TRANSPORTATION ASSOCIATION

STATEMENT OF WILLIAM H. POWER, VICE PRESIDENT, GOVERNMENT AFFAIRS

The National Air Transportation Association (NATA) represents the business interests of the nation's aviation service companies, commonly called fixed base operators or FBOs and on-demand air carriers or air charter companies. FBOs are perhaps the most complicated type of business in aviation today. Most FBOs are involved in a variety of aeronautical activities: sale of aviation fuel to private and business aircraft; airline refueling; aircraft parking and hangaring; repair and maintenance of aircraft; aircraft sales; flight instruction; and aircraft charter to name just a few. Even though most of our Members provide all of these services, the major profit centers for virtually all fixed base operators are the sale of aviation gasoline and jet fuel, maintenance, and the chartering of their aircraft.

FBOs and air charter companies are located on airports all across the country -- from the smallest general aviation field to the largest air carrier airport. These companies are not only concerned about airport and airway development from a philosophical standpoint, they are an integral part of the process, since they act as collection agents for the U.S. government. Each time an FBO sells a gallon of avgas or jet fuel, it is required by law to collect the federal aviation excise tax on that sale. Each time an air charter company provides its aircraft to a charter customer, that company must collect the federal passenger ticket tax. Of course, these taxes are deposited in the Aviation Trust Fund for use in airport and airspace development.

The Subcommittee should understand the very unique position that fixed base and air charter operators occupy with regard to airport development and airway modernization. Since these companies are so geographically diverse, they are concerned with development at **all** airports. Not just general aviation fields and not just air carrier airports. Since one of their major sources of revenue is from fueling all types of aircraft -- private, business and airline -- they are very aware and supportive of the interests of those segments of aviation. Since air charter carriers operate in the entire airspace system, they are vitally concerned with all aspects of its development.

Because NATA Members span the spectrum of airports, we encourage continued development of the entire national airport system. The FAA has identified over $24 billion needed for Airport Improvement Program (AIP) eligible airport improvements and expansion over the next ten years. Since the revenues from the taxes on aviation users are deposited in the Aviation Trust Fund with the intent that they be used to improve the system, NATA strongly encourages this Subcommittee to appropriate the authorized levels.

The Association and its Member companies are concerned with the impact of increased attention to aviation security and associated FAA rulemaking. While believing in a secure aviation system, we are concerned that AIP money is being used for security equipment and systems rather than capacity enhancements. In our view, since airports are responsible for security, money should be authorized from the Aviation Trust Fund to be used by the airport for security equipment at both the air carrier area and general aviation airport tenant leaseholds. This authorization should be in addition to the current levels so that airports can continue using AIP dollars for capacity improvements.

We are also troubled by any statutory changes related to security regulation which diffuses the FAA's ability to protect the travelling public by drastically expanding the regulated community. Security enforcement is a plan including a combination of people, procedures and equipment requiring oversight by one entity -- the airport, who is then responsible to the FAA. Airports, rather than individual tenants, are in the best position to develop and implement a security program as required by current FAA regulation. We strongly encourage the Subcommittee to include report language which reaffirms the airport's overall responsibility for security. The NATA staff is available to assist the Subcommittee on drafting such language.

In general, our Members are concerned about program slippages in the National Airspace System or NAS Plan. It is confusing to hear Administration officials say that delays in implementation are because of contractual and technological problems and not because of funding shortfalls. If that is the case, NATA encourages the Subcommittee to carefully scrutinize FAA's management practices to ensure that future problems are avoided. This is even more critical with major purchases needing to be made to upgrade the air traffic control system. In past years, several major NAS Plan projects were not fully funded, thus deferring appropriation needs into the future. We are now at the point where reduced funding could cause further delays in implementing airway improvements.

The Association and its Member companies strongly supported implementation of a trigger tax to reduce aviation tax rates if appropriations do not meet authorizations. Even though our Members are tax collection agents, and may be forced to adapt to changes in tax rates, they are willing to play that role to help ensure full spending. In NATA's view, the money should be spent on the development of the airport and airway system. However, if the spending cannot be allocated at the authorized amounts, the taxes should be reduced rather than allowing the money to continue building in the Aviation Trust Fund.

In summary, Mr. Chairman, the Members of NATA appreciate this opportunity to present our views on FAA FY90 spending. NATA strongly supports efforts to spend aviation tax dollars for airport and airway development. The Association encourages the Subcommittee to include report language which reaffirms the airport's overall responsibility for security.

STATEMENT OF JAMES C. DeLONG, DIRECTOR OF AVIATION, CITY OF PHILADELPHIA

Mr. Chairman, Members of the Subcommittee:

I am James DeLong, the Director of Aviation for the City of Philadelphia. As Director of Aviation, I am responsible for airport operations and development for the City. I want to thank the Subcommittee for the opportunity to advise you of a matter of great importance to our tri-state region and for which we seek your support.

Philadelphia critically needs sufficient funds under the Federal Aviation Administration's (FAA) Airport Improvement Program (AIP) to enable the City to complete several major development projects at Philadelphia International (PHL) and Northeast Philadelphia (PNE) Airports. The people of the Philadelphia tri-state area are very grateful for this Subcommittee's support in the past and its recognition of the City's AIP projects in report language. We particularly appreciate your personal interest in and substantial support of our Airport, Mr. Chairman, and we hope for this Subcommittee's continued support.

I. PHILADELPHIA NEEDS $33.4 MILLION IN AIP DISCRETIONARY FUNDS FOR FY 1989 AND FY 1990.

A. Philadelphia International and Northeast Philadelphia Airports Must Be Expanded to Meet the Tri-State Region's Demand for Improved Air Transportation Services.

The City is the owner and operator of two airports, Philadelphia International Airport and Northeast Philadelphia Airport. These two airports serve the entire tri-state region of Pennsylvania, New Jersey and Delaware, a metropolitan area of about 6 million people. Philadelphia

International is a primary airport, while Northeast Philadelphia is a reliever airport.

In 1988, Philadelphia International handled 15.6 million passengers and 415,000 flight operations. According to FAA statistics for 1987, Philadelphia International ranks nineteenth among the nation's leading airports in terms of passenger enplanements, even though Philadelphia is the nation's fifth largest metropolitan area. Many airports in smaller metropolitan areas serve substantially more passengers than PHL. Thus, expansion of PHL is essential to providing our large tri-state region the increased service it needs and deserves. The expansion of PHL will also be necessary to meet the dramatic increase expected in demand over the next decade, particularly since other airports in the region have serious constraints to further growth.

PHL underwent its last major facilities expansion phase in the early 1970s with the construction of the existing passenger terminals and a second parallel runway. Since then, while most other airports have expanded, PHL has remained relatively stable. However, traffic at PHL increased significantly during this ten-year period. Between 1977, one year after the existing passenger terminals opened, and 1988, the number of passengers at PHL almost doubled, from 8.6 million to 15.6 million per year -- an additional 7.0 million passengers. Much of this growth has been recent. In fact, in 1987 alone, the number of passengers increased by about 20 percent over the prior year. The total number of operations also has grown substantially, from 331,000 in 1977 to 415,000 in 1987, an additional 84,000 operations, or a 25 percent

increase. Even more substantial growth occurred in the number of air carrier and commuter operations, which increased from 243,000 in 1977 to 354,000 in 1988 -- representing a 45 percent growth rate.

This dramatic increase in traffic will continue. USAir and Eastern Airlines established hubs at PHL in 1987, and United Parcel Service is completing its new $130 million East Coast distribution hub, which will begin operations later this year. As a result of this tremendous increase in traffic over the past decade and the increase expected in the next few years, PHL urgently needs to expand its facilities to meet the aviation needs of today and the 1990s.

The Department of Transportation (DOT) and the FAA have clearly recognized the seriousness of our capacity problem and the need for expansion at PHL. In 1987, DOT authorized airlines at several airports to engage in scheduling discussions to alleviate congestion during certain peak hours. Out of all the airports in the country, DOT determined that congestion problems were serious enough to warrant discussions for only five airports, one of which was PHL. As we indicated at that time, the only responsible way to address future delays is by expanding capacity, not curtailing service. In fact, without capacity enhancement projects, delays at PHL are expected to increase by 123 percent from 1987 to 1997, according to the Airport Capacity Enhancement Plan recently published by the FAA.

We remain determined to adopt a positive approach to solving delay problems by continuing existing projects and initiating new ones. We have a major five-year $500

million construction program under way at Philadelphia International Airport. Most of the construction program will be funded by the City, the airport and the air carriers themselves. In fact, $346 million of this development will come from local contributions. Our projects for PHL fall into four categories:

(1) Capacity maintenance--projects needed to maintain existing airfield capacity, consisting of work on our runways, taxiways and aprons;

(2) Capacity enhancement--projects designed specifically to increase capacity at PHL, including construction of a new international terminal and a new runway system;

(3) Safety enhancement--projects to enhance capacity, including addition of a runway safety area, installation of a noise monitoring system and a security system and construction of a service road for emergency vehicles; and

(4) Other airport projects--projects to increase the efficiency of airport operations generally.

Implementation of this extensive construction program will help our airport meet the increasing air travel needs of the Northeast by enabling us to accommodate more than 50 million passengers annually by the year 2008. The renovations will transform PHL into a world-class airport and will enhance its role as a major economic generator for the Philadelphia area. Under this plan, we hope to match the economic contributions made by Atlanta's and Dallas-Forth Worth's airports to the economic development of their respective regions. Toward that end, we have

established an Airport Advisory Committee, a 14-member group of government and business leaders to function much like a corporate board of directors for the Airport.

While most of these projects will increase PHL's capacity, we also must point out that several projects must be completed as soon as possible simply to maintain existing service, much less expand! We understand that projects involving the rehabilitation of existing facilities do not always get the same attention as the construction of bright, shiny new facilities, but these projects are just as critical to our overall capacity. Without them, service will simply deteriorate.

To complete the necessary projects at PHL, Philadelphia issued bonds in the amount of $111.4 million in 1984 and 1985 and $123 million in 1988, with an additional $100 million bond issuance under consideration for 1990. In addition, every dollar of revenue generated by the airports is plowed back into the airports to cover costs.

As you can see, Mr. Chairman, the City has made a major commitment to increasing capacity at PHL. Nonetheless, despite the City's efforts, these funds are simply not enough to get the job done. Given the role our airport plays in the national air transportation system, as well as the benefits of these projects to the tri-state region, federal assistance is appropriate and necessary.

Since FY 1982, PHL has received $10.9 million in AIP discretionary funding, a relatively small amount in light of the increasing demands we have faced. This fiscal year, PHL requires a total of $13.4 million in AIP discretionary funds, in addition to approximately $6.8 million in entitlement funding we expect to receive. We

hope that the full amount in discretionary funding will be granted, given the Congressional mandate, as set forth in the House, Senate and conference reports accompanying the FY 1989 Transportation Appropriations Act, directing the FAA to grant PHL high-priority funding consideration. For FY 1990, we hope to receive an additional $20.1 million in AIP discretionary funds. Once construction of our new runway system gets under way, our needs will increase further, up to about $42.5 million in AIP discretionary funding in FY 1991.

Considering the overwhelming capacity needs of PHL and the outlook for the future, these funding levels are modest, particularly in light of recent AIP funding received by airports facing similar demands. This level of federal funding is essential if we are to begin to provide the air transportation services the public needs and deserves today and through the 1990s. We look forward to working with you to achieve these goals.

B. Philadelphia International Has Several Important Projects Requiring AIP Assistance in FY 1989 and FY 1990.

The specific projects the City is undertaking, the reasons they are so critical to operations at PHL and PNE and the specific AIP funding needs are as follows:

1. Capacity Maintenance.

Six taxiways must be constructed to accommodate PHL's overall expansion, including the International Terminal and the United Parcel Service facility. The taxiways will reduce taxiing time and fuel consumption while increasing PHL's airfield capacity. In addition, one of PHL's two

primary runways, 9R-27L, which was constructed in 1971, is showing signs of wear and must be restored.

The total cost for these projects will be approximately $16.5 million, of which the City will fund $4.1 million. The City has received $515,000 in AIP funding for these projects and is seeking approximately $6.0 million this fiscal year, with an additional $5.9 million in FY 1990.

Runway 9R-27L requires extensive resurfacing work to restore the crown and grade for proper smoothness and drainage. Since the taxiway construction will affect operations on 9R-27L, the runway restoration should be completed in conjunction with the taxiway construction. The runway design work was completed in FY 1988 and the actual restoration work will commence shortly.

2. Capacity Enhancement.

a. The International Terminal.

The City's largest aviation project presently is the construction of a new International Terminal at PHL. International flights currently use a forty-year old hangar that was converted to a terminal about 15 years ago. Replacement of this aged facility is long overdue. The new terminal will have 11 gates, customs and immigration facilities and the capacity to handle up to 3 million passengers per year. The construction project includes terminal facilities, aprons, aircraft loading bridges and related improvements to baggage claim roadways. Construction began in the fall of 1987, and the terminal is currently scheduled to open in January 1991. The new International Terminal will allow PHL to increase

its international air service, including new international carriers and new feeder service. As evidence of the need for this project and the City's commitment to it, the City has issued bonds to cover about $100 million of the project costs.

The major portion of the International Terminal project for which we are seeking AIP assistance is completion of the apron for the terminal and the terminal building itself. The balance needed for the apron is $718,000. For the International Terminal building, the City will require an additional $3.0 million in FY 1989 and $3.5 million in FY 1990.

In addition to funding for the apron and International Terminal building, we need $4.2 million in FY 1989 AIP funding for landside facilities, including roadways.

b. Construction of New Runways.

Existing projects undoubtedly will help alleviate the current capacity shortage which PHL faces. However, additional steps will still be necessary to address the problem. Therefore, we intend to construct two new runways and related taxiways at PHL. The estimated cost of these new runways, coupled with extension of another runway and associated taxiway work, is $133.8 million. Of this amount, $30 million will cover land acquisition for one of the new runways, while the remaining $103.8 million will be allocated to construction. Assuming plans for the new runway and associated improvements proceed, PHL would be eligible for $98 million in AIP funding for the project. For the design and engineering work, $2.4 million would be needed in FY 1989 and $3.5 million in FY 1990. An

additional $42.5 million would be needed in FY 1991, when construction would begin.

Mr. Chairman, this is a project about which we are all excited because it has the potential to alleviate significantly the serious capacity problems we face today. One of the new runways would be used exclusively for commuter aircraft and would free up our other runways for additional major air carrier operations, thereby significantly increasing PHL's capacity.

c. Airport Master Plan.

In view of the need to increase capacity at PHL and to better respond to the aviation needs of the 1990s, we will undertake preparation of a new, comprehensive Airport Master Plan. The City already has contracted for a separate master plan for the airfield alone, which will be funded entirely through local sources. The contract for the remaining portions of the master plan will be let next year. The total cost for the overall master plan will be $1.5 million, $1.1 million of which will be required under AIP in FY 1990.

3. Safety Projects.

PHL is in the process of acquiring approximately 13 acres at the approach end of Runway 9R-27L for construction of an extended safety area. We already have received $563,000 in AIP funds for the runway safety area, which is one of the FAA's highest priorities. We will need an additional $750,000 in AIP funding for FY 1990.

The City also plans to install a $1 million system to monitor aircraft noise at PHL. The City will fund

$250,000, with the remaining $750,000 required in AIP funding in FY 1989. However, we have approached the carriers about contributing to the system as well, which would reduce our AIP requirements.

4. Other Airport Projects.

Under the capital improvement program under way at PHL, the City and local sources are providing the total funding for several major projects without any AIP assistance. The total cost for these projects is $218.3 million over FYs 1989-93. Included among the projects are hotel and public parking facilities, an asbestos abatement program, expansion of emergency electrical generators, expansion and modernization of the fire alarm system, airport roadway system improvements and a variety of other programs. In FY 1989 alone, the local share for these projects will amount to $50.3 million, with an additional $139 million in FY 1990.

C. Northeast Philadelphia Airport.

Northeast Philadelphia Airport, an important reliever airport, which handled close to 196,000 operations in 1988, is a key component in the region's air transportation system. Further enhancing the role of PNE in our community, Agusta Aviation Corporation, the world's fourth largest helicopter manufacturer, has signed a long-term lease in 1987 with our Commerce Department to operate its North American corporate headquarters out of the airport.

Agusta, a subsidiary of Gruppo Agusta SPA, based in Milan, Italy, recently completed construction of offices

and a helicopter finishing plant on a 10-acre site. The Philadelphia Industrial Development Corporation provided $4 million in financing for the 75,000-square-foot facility. Agusta's decision to locate at PNE undoubtedly will generate further private development adjacent to the airport. The City is constructing a taxiway and service road to accommodate this growth. The estimated cost of the work is $3.2 million, of which $2.5 million was received under AIP in FY 1988. The City needs an additional $380,000 in FY 1989 AIP funds for the project.

D. Philadelphia's Airport Projects Will Respond to the Federal Capacity Mandate.

As we have indicated, for the City to complete these projects, and thus be able to meet the current air transportation needs of our large and populous tri-state region, will require substantial discretionary funds in addition to what Philadelphia would normally receive under the entitlement program. However, this funding would be consistent with federal goals for the national air transportation system.

In reauthorizing the AIP in 1987, Congress restructured the program guidelines to make discretionary funds available specifically for capacity enhancement projects. The new law requires the FAA, in allocating grants from the new set aside, to consider: (1) effect on the overall national air transportation system; (2) project benefit and cost; and (3) the sponsor's financial commitment to capacity.

In January, the FAA released guidelines for applying these criteria to projects for which AIP funds are requested. In terms of the effect on the overall system,

the FAA set out four evaluation criteria: (1) delays; (2) aircraft operations; (3) non-stop connectors; and (4) proportion of connecting passengers. For all four criteria, PHL -- which is the 13th busiest airport in the nation in operations -- ranks high.

In terms of project benefit and cost, PHL once again scored high. Several of our key projects -- particularly construction of the new runway system and reconstruction of a major runway and existing taxiways -- receive significant weight under the FAA's evaluation scale. Our entire five-year development project promises to enhance capacity at PHL. In fact, an initial study prepared for the City indicates that construction of the new runways, coupled with the new taxiways and other airfield improvements, could increase capacity at PHL by as much as 50 percent.

The third criterion for allocation of the capacity set aside is the sponsor's financial commitment. Given the City's commitment to capacity enhancing projects, such as the international terminal and the new runway system, and our comprehensive five-year plan to improve PHL, the City more than meets this requirement as well.

E. Additional Local Revenue Would Reduce Philadelphia's AIP Funding Needs.

Mr. Chairman, we in Philadelphia recognize the serious budget constraints which Congress faces and the pressures brought to bear on this Subcommittee. At the same time, the nation also faces a potentially crippling air transportation capacity shortage which must be addressed immediately and decisively.

As I have noted, Philadelphia has demonstrated its financial commitment to the capacity improvement program under way at PHL. In fact, approximately 70 percent of our $500 million program will be funded from local sources.

The City could fund much more locally, however, if the airport were permitted to institute even a modest passenger facility charge. For example, the imposition of a $1-per-passenger charge would allow the City to service up to $200 million in additional debt to help fund the capacity improvement program at PHL. This additional revenue not only would reduce the amount of AIP funding needed but could actually accelerate the program under way at PHL.

As you know, however, airports have been precluded from imposing a passenger facility charge since the 1970s. While I recognize that legislation to allow airports like PHL to impose a passenger facility charge may lie outside the jurisdiction of your Committee, I would urge Congress to reevaluate the current prohibition on passenger facility charges, particularly in light of the growing capacity needs and the variety of conflicting transportation funding requirements faced today.

II. CONCLUSION

In conclusion, Mr. Chairman, our projects are critical if Philadelphia is to have a safe, efficient air transportation system capable of meeting the current needs of one of the nation's largest metropolitan areas. Discretionary funds will be necessary for these projects to get off the ground. Accordingly, we urge the Senate

Transportation Appropriations Subcommittee to fully fund the AIP at the maximum level of $1.7 billion for FY 1990. Moreover, we respectfully request that the Subcommittee once again direct the FAA to give priority consideration for awarding the necessary discretionary funds for Philadelphia's airport projects.

Mr. Chairman, I thank you for the opportunity to advise this Subcommittee of our AIP funding requirements for Philadelphia International Airport and Northeast Philadelphia Airport. The tri-state region greatly appreciates the support you have given us in the past and hopes to receive your continued support in this critical stage of our development.

COAST GUARD FUNDING

AMERICAN LEAGUE OF ANGLERS AND BOATERS

STATEMENT OF NORVILLE S. PROSSER, VICE PRESIDENT

This statement reflects the position of the American League of Anglers and Boaters (ALAB), on the fiscal 1990 appropriations from the Boating Safety Account of the Aquatic Resources Trust Fund. ALAB is a strong alliance of nearly 30 of the nation's most important recreational fishing and boating advocacy organizations. Although ALAB members' specific interests vary depending on the constituency they represent, they have been solidly united in support of the user-funding philosophy which Congress used in 1985 to construct the Aquatic Resources Trust Fund or more popularly, the Wallop-Breaux Trust Fund.

The Aquatic Resources Trust Fund was established to improve funding for recreational boating safety and for sport fish restoration programs. Deposits to the Trust Fund are solely from federal excise taxes attributable to motor boat fuels and fishing equipment, along with the import duties on fishing equipment, yachts, and pleasure boats.

In designing this popular program, Congress, and a broad coalition of public supporters, accepted the simple premise that user fees collected from the public should be spent in their entirety to improve services of direct benefit to the paying public. Specifically, in this case, user fees collected from the boating and fishing public are deposited into the Aquatic Resources Trust Fund and directly invested in boating safety and sport fish enhancement programs.

The Trust Fund is divided into two accounts, the Boating Safety Account and the Sport Fish Restoration Account. To accomplish the principle of dedicated expenditure of these user fees, Congress stipulated in the statute that any user fees that were not appropriated to the Boating Safety Account (up to the full authorized amount) would automatically "roll over" into the Sport Fish Restoration account within the Trust Fund.

The Aquatic Resources Trust Fund Program was reauthorized during the 100th Congress for five years with an authorized expenditure of $60 million from the Boating Safety Account for 1989 and 1990 and $70 million for 1991, 1992 and 1993. Further, Congress instructed that these expenditures be equally divided each year between state boating safety program and the U.S. Coast Guard.

Under the Boating Safety Account-funded State Boating Safety Assistance Program, funds are distributed to the states on a 50/50 matching basis. All such funds are dedicated for use by the states on approved recreational boating safety educational and law enforcement programs. The monies are allocated to the states based on the following formula:

1) 1/3 divided equally among the eligible states;
2) 1/3 to eligible states on the basis of the numbered vessels; and
3) 1/3 to eligible states according to the amount of state funds expended for boating safety programs in the previous year.

This cooperative federal-state recreational boating safety program has been successful, as reflected by the reduction in the boating fatality rate over the past several years. Although the estimated number of boats in the nation has more than doubled since the Federal Boating Safety Act of 1971, the fatality rate has dropped from 20.2 deaths per 100,000 in 1971 to a 1987 rate of 6.1 per 100,000 boats in 1987.

However, the number of recreational boats on America's waterways is increasing at a rapid rate. Despite the overall decline in the boating fatality rate, some states are experiencing increases in the number of fatalities because of the growth in boating participation. It is incumbent upon the state and federal governments to provide greater effort in boating safety education and enforcement. Now is not the time to curtail the ability of state and federal governments to cooperatively improve boating safety programs through the State Boating Safety Assistance Program.

The members of ALAB wish to go on record as supporting the Transportation Department's Fiscal Year 1990 Coast Guard budget proposal to appropriate $30 million to the U.S. Coast Guard from the Aquatic Resources

Trust Fund's Boating Safety Account. However, we wish to register our unified and strong opposition to the proposed reduction of appropriations for the State Boating Safety Assistance Program from $30 million to $15 million. The Boating Safety Account is totally funded from the federal tax on marine fuels that are contributed by the boating community. This user-funded, federal-state partnership program has been noted by the President and others as an excellent example of the user pay principle and has been singularly successful in lowering the boating accident rate. The State Boating Safety Assistance Program should be fully funded at the authorized level of $30 million for fiscal 1990.

ORGANIZATIONAL MEMBERS OF THE
AMERICAN LEAGUE OF ANGLERS AND BOATERS

American Fisheries Society

American Fishing Tackle Manufacturers Association

American Recreation Coalition

Atlantic Salmon Federation

Atlantic States Marine Fisheries Commission

Bass Anglers Sportsman Society

Boat Owners Association of the United States

Boating Trades Association of Texas

California Trout

Federation of Fly Fishers

Fish America Foundation

Fred Arbogast Company, Inc.

Great Lakes Sport Fishing Club of Milwaukee

Gulf States Marine Fisheries Commission

International Association of Fish and Wildlife Agencies

Izaak Walton League of America

Marine Retailers Association of America

Mercury Marine Division, Brunswick Corporation

National Association of State Boating Law Administrators

National Boating Federation

National Coalition for Marine Conservation

National Marine Manufacturers Association

National Wildlife Federation

Outboard Marine Corporation

Pacific Marine Fisheries Commission

Restoration of Atlantic Salmon in America, Inc.

River City Anglers

Robert J. Goldstein and Associates

South Carolina Anglers, Inc.

Sport Fishing Institute

States Organization for Boating Access

Theodore Gordon Flyfishers, Inc.

Trout Unlimited

Zebco Corporation

NATIONAL ASSOCIATION OF STATE BOATING LAW ADMINISTRATORS

STATEMENT OF GEORGE STEWART, DIRECTOR

Mr. Chairman and Members of the SubCommittee:

I am George Stewart, Director, Government Affairs, National Association of State Boating Law Administrators. Our association is pleased to provide input into your hearing regarding the State Boating Safety Trust Fund Authorization/ Appropriation.

Mr. Chairman, when the Sportfishing and Boating Enhancement Act of 1984 was passed, creating the Aquatic Resources Trust Fund, our association recognized this as a milestone legislation in directing support to "our boating public" with the tax this group pays on marine fuel used in motorboats. In previous testimony, we applauded the Congress on their farsighted approach to the needs of this user group, without placing a burden on the general taxpayer.

Our association notes with pleasure that the Aquatic Resources Trust Fund, which has come to be widely known as the Wallop-Breaux Fund was reauthorized in the Second Session of the 100th Congress for 5 years, with $60 million authorized for the first two years and $70 million the next three years. The funds are to be equally divided between the states and the Coast guard to defray their costs for services to the recreational boater. It is further noteworthy that the boating safety funds are a "user fee" paid by boaters to defray the cost of government services that uniquely benefit the recreational boating public. These funds are for boaters, financed by boaters, and demonstrates that the user fee concept is working well. We feel strongly that these funds should be returned to the states as provided for in the law. To do otherwise, in our opinion, would not be in keeping with the "user fee concept".

The federal agency administering these "user fee" trust funds to the states is the U.S. Coast Guard within the Department

of Transportation. We are obviously perplexed that the FY'90 request is only for $45 million of the authorized $60 million and this $45 million be appropriated $30 million to the Coast Guard and $15 million to the states. This is especially disheartening since the states, the industry and the boating organizations championed the program in the first place so the Coast Guard would receive part of the funding.

The supporters of the Wallop-Breaux funding visualized that the federal funds derived from this user fee paid by boaters, would go far in reducing federal involvement and shifting to the states the lead role in boating safety law enforcement and boating safety education. It is noteworthy that this train of thought follows the guidelines in the Coast Guards Roles and Mission Report that recommended the states assume the primary role in boating safety law enforcement while federal involvement should be only to insure functions meet minimum uniform requirements. We feel the states are meeting these high expectations and that our state program is one that the Congress can be proud of.

Our association values the close working relationship we have with the U.S.Coast Guard. We feel we compliment each other in our boating safety efforts. This is important, we think, since the waters we operate on are generally "joint jurisdictional". Additionally we are satisfied with the manner in which the Coast Guard administers the trust fund monies to the states. Our principal difference each year is during the authorization/appropriation process, when the administration wants to reduce the states share of trust fund monies. We obviously take this as an affront, since it is widely known that the states are indeed taking the lead role in boating safety.

Initially, the federal boat safety funds were authorized $45 million with $30 million to the states and $15 million to the Coast Guard. Our association along with the many organizations that make up the American League of Anglers

and Boaters strongly supported legislation to raise the boating safety authorization/appropriation to $60 million for FY'89 and '90 and $70 million for FY'91,'92 and '93 with the funds split 50-50 between the states and the Coast Guard. This would raise the Coast Guards authorization/appropriation from $15 million to $30 million for two years and then on to $35 million the next three years, the same as the states share of these user fee funds. It was our desire that this would avoid further efforts to reduce our state funds. This hasn't happened and obviously, we are in a "catch 22" situation where we are recognized as doing a superb job and at the same time see an effort being made to take away half of our funds authorized to get the job done.

Attached to my testimony is the allocations of Wallop-Breaux funding for the state recreational boating safety program for FY 1989. You can see the adverse impact that a 50 percent reduction will have on the states.

The major problem we have, is dealing with the uncertainty over federal funding year to year. It makes it difficult to prudently budget for long term commitments to program improvements with any certainty. We therefore cannot over-emphasize that stability is needed, if the true fruits of full funding are to be realized.

Attached also is the overall expenditures for both state and federal for 1972 to 1989. We think it is noteworthy that the Coast Guard boating safety resources in the states ran $30 million a year for the years 1975 through 1980 but dropped to zero in 1981. This reduction on the part of the Coast Guard was primarily a result of their removal of the Boating Safety Detachment Teams from the nations waters. The states, I might add, readily picked up this additional responsibility. Especially noteworthy from this overall expenditure is the fact that the states matching share of funding has steadily increased from $16,480,000 in 1972 to $120,000,000 in 1989.

Allowing the states to recoup the federal marine fuel tax that boaters pay on marine fuel used in motorboats is a prime example of the boat user fees helping the user. With these funds the states have willingly assumed a major share of what is logically and statutorily a joint responsibility. As shown in the steady increase in state funding since 1972 and picking up the slack on removal of the Coast Guards Boating Safety Detachment teams, we feel the states have shown credibility, consistency and resources to reach the boating public. The states have concentrated on establishing an administrative infrastructure, purchase equipment and promote the education and enforcement techniques to stimulate increased boating awareness, and thereby decrease fatalities. We believe that increased state effort should result in savings to the federal government rather than inordinate additional costs, which would emanate from state curtailment should funding be decreased.

In summary, we are proud of the states use and effectiveness of the federal boat safety funding and feel that our waterway patrols are highly visible on our nations waterways. We have many times received praise from the U.S.Coast Guard, Industry and the various boating organizations as well as the boating public we serve. To keep the momentum, we ask the support of this SubCommittee for $60 million authorization/ appropriation for fiscal 1990 and this be split 50-50 between the states and the U.S. Coast Guard, the same as we received in fiscal 1989.

STATE RECREATIONAL BOATING SAFETY PROGRAM

STATE	Before W/B FY 1983	Before W/B FY 1984	Before W/B FY 1985	FY 1986	FY 1987	FY 1988	FY 1989
ALABAMA	$264,678.00	$264,978.00	$285,199.00	$660,021.00	$603,553.00	$418,189.00	$524,831.00
ARIZONA	$156,294.00	$169,138.00	$177,636.00	$387,273.00	$344,809.00	$265,602.00	$351,451.00
ARKANSAS	$226,652.00	$220,479.00	$242,495.00	$473,600.00	$545,712.00	$382,102.00	$339,286.00
CALIFORNIA	$569,664.00	$907,760.00	$798,399.00	$1,682,130.00	$1,930,041.00	$1,271,897.00	$1,509,904.00
COLORADO	$112,747.00	$116,021.00	$124,502.00	$271,691.00	$275,974.00	$193,614.00	$259,242.00
CONNECTICUT	$206,149.00	$146,914.00	$169,501.00	$350,394.00	$336,426.00	$258,647.00	$340,759.00
DELAWARE	$131,059.00	$124,508.00	$134,832.00	$272,877.00	$291,509.00	$239,713.00	$270,741.00
DIST OF COL	$153,261.00	$148,669.00	$149,889.00	$284,249.00	$254,766.00	$191,922.00	$271,987.00
FLORIDA	$389,066.00	$606,831.00	$724,874.00	$1,439,786.00	$1,174,076.00	$993,296.00	$2,006,590.00
GEORGIA	$276,434.00	$256,144.00	$277,666.00	$607,125.00	$632,228.00	$434,630.00	$572,456.00
HAWAII	$94,946.00	$113,417.00	$144,487.00	$321,305.00	$219,026.00	$230,633.00	$309,305.00
IDAHO	$129,438.00	$129,954.00	$133,465.00	$297,785.00	$288,378.00	$193,662.00	$282,283.00
ILLINOIS	$230,747.00	$218,281.00	$238,330.00	$510,415.00	$549,944.00	$360,992.00	$481,953.00
INDIANA	$243,743.00	$195,645.00	$215,984.00	$443,260.00	$484,370.00	$328,467.00	$466,303.00
IOWA	$234,864.00	$212,783.00	$247,894.00	$484,736.00	$505,178.00	$329,246.00	$442,875.00
KANSAS	$125,686.00	$116,449.00	$129,132.00	$280,496.00	$279,276.00	$192,579.00	$273,233.00
KENTUCKY	$213,914.00	$184,785.00	$210,333.00	$474,225.00	$433,429.00	$322,766.00	$421,231.00
LOUISIANA	$389,541.00	$376,597.00	$291,607.00	$648,060.00	$691,339.00	$445,285.00	$598,547.00
MAINE	$149,658.00	$136,577.00	$154,395.00	$309,454.00	$344,683.00	$233,241.00	$329,456.00
MARYLAND	$480,591.00	$618,923.00	$720,783.00	$1,358,420.00	$1,557,756.00	$1,100,021.00	$1,618,288.00
MASSACHUSETTS	$207,715.00	$235,092.00	$244,366.00	$558,220.00	$572,737.00	$397,230.00	$505,342.00
MICHIGAN	$639,758.00	$539,336.00	$558,485.00	$1,215,350.00	$1,113,456.00	$797,279.00	$1,176,553.00
MINNESOTA	$479,663.00	$410,948.00	$518,640.00	$1,069,185.00	$1,066,761.00	$743,933.00	$1,015,220.00
MISSISSIPPI	$190,470.00	$222,383.00	$218,090.00	$425,681.00	$461,922.00	$315,322.00	$423,796.00
MISSOURI	$298,719.00	$282,367.00	$328,590.00	$698,538.00	$724,524.00	$500,625.00	$639,962.00
MONTANA	$98,833.00	$97,341.00	$109,837.00	$230,250.00	$232,950.00	$169,225.00	$223,560.00
NEBRASKA	$104,044.00	$97,566.00	$110,399.00	$83,000.00	$231,196.00	$163,695.00	$229,329.00
NEVADA	$110,792.00	$100,972.00	$113,427.00	$262,347.00	$248,005.00	$191,115.00	$255,242.00
NEW HAMPSHIRE	$100,031.00	$97,379.00	$106,787.00	$229,804.00	$236,721.00	$167,434.00	$234,977.00
NEW JERSEY	$286,743.00	$243,699.00	$335,665.00	$703,746.00	$756,421.00	$511,259.00	$775,220.00
NEW MEXICO	$102,166.00	$99,395.00	$107,582.00	$233,612.00	$230,694.00	$177,178.00	$235,175.00
NEW YORK	$703,412.00	$258,749.00	$307,467.00	$947,557.00	$1,016,957.00	$702,852.00	$973,298.00
NORTH CAROLINA	$225,697.00	$215,651.00	$225,517.00	$477,883.00	$498,536.00	$368,152.00	$534,111.00
NORTH DAKOTA	$97,884.00	$94,332.00	$102,271.00	$210,357.00	$213,982.00	$156,595.00	$216,449.00
OHIO	$390,762.00	$263,132.00	$470,360.00	$1,013,735.00	$1,088,427.00	$676,116.00	$749,537.00
OKLAHOMA	$261,897.00	$256,743.00	$270,902.00	$545,640.00	$522,990.00	$354,728.00	$450,599.00
OREGON	$211,781.00	$211,311.00	$203,765.00	$436,773.00	$442,950.00	$338,454.00	$440,227.00
PENNSYLVANIA	$318,267.00	$267,107.00	$313,334.00	$726,693.00	$680,880.00	$433,841.00	$630,276.00
RHODE ISLAND	$103,661.00	$91,593.00	$98,402.00	$211,159.00	$212,630.00	$151,793.00	$220,928.00
SOUTH CAROLINA	$188,862.00	$230,871.00	$291,438.00	$598,602.00	$617,271.00	$442,292.00	$582,682.00
SOUTH DAKOTA	$101,079.00	$92,105.00	$99,745.00	$215,002.00	$220,739.00	$152,527.00	$212,121.00
TENNESSEE	$223,545.00	$197,099.00	$209,708.00	$467,556.00	$427,976.00	$306,176.00	$469,679.00
TEXAS	$637,155.00	$584,651.00	$603,075.00	$1,305,017.00	$1,199,149.00	$832,590.00	$1,146,423.00
UTAH	$120,543.00	$122,020.00	$136,846.00	$286,850.00	$308,774.00	$220,651.00	$298,212.00
VERMONT	$96,026.00	$91,026.00	$99,128.00	$217,448.00	$217,443.00	$154,395.00	$215,569.00
VIRGINIA	$163,450.00	$173,448.00	$243,787.00	$417,510.00	$427,686.00	$310,318.00	$401,289.00
WASHINGTON	$0.00	$170,226.00	$168,162.00	$472,885.00	$352,707.00	$251,960.00	$353,359.00
WEST VIRGINIA	$111,110.00	$104,753.00	$118,799.00	$226,137.00	$230,371.00	$164,316.00	$227,980.00
WISCONSIN	$344,414.00	$335,410.00	$365,556.00	$779,879.00	$777,400.00	$553,848.00	$743,395.00
WYOMING	$88,777.00	$86,612.00	$90,611.00	$120,000.00	$202,626.00	$143,409.00	$201,059.00
AMERICAN SAMOA	$75,820.00	$73,335.00	$80,899.00	$172,869.00	$172,893.00	$120,990.00	$169,194.00
GUAM	$83,190.00	$0.00	$0.00	$0.00	$173,434.00	$121,351.00	$170,020.00
PUERTO RICO	$102,069.00	$93,500.00	$108,449.00	$148,856.00	$225,532.00	$167,273.00	$169,227.00
NORTHERN MAR	$77,814.00	$73,348.00	$80,928.00	$172,979.00	$173,358.00	$121,357.00	$214,276.00
VIRGIN ISLANDS	$87,919.00	$76,632.00	$87,580.00	$186,881.00	$175,432.00	$122,843.00	$181,693.00
STATE TOTAL	$12,215,000.00	$11,874,985.00	$13,100,000.00	$27,625,323.00	$28,500,000.00	$19,947,500.00	$27,900,000.00
COAST GUARD				$15,600,000.00	$30,600,000.00	$22,027,000.00	$30,000,000.00
Note: FY 1986 & 1988 subject to Gramm/Rudman/Hollings				$43,225,323.00	$59,100,000.00	$41,974,500.00	$57,900,000.00

STATE RECREATIONAL BOATING SAFETY PROGRAM - 46 USC 13101

Federal Boat Safety Act of 1971

FUNDED BY GENERAL REVENUES OF DEPT. OF TREASURY

	State Program Authorization	State Annual Appropriated	Percent of Authorization	Dedicated CG Boating Safety Resources in the States	Total Federal dollars from General Fund	State Matching Funds	Total Program Funds	Fed % Total Funds	State % Total Funds
1972	$7,500,000	$3,000,000	40.0%	$25,500,000	$28,500,000	$14,430,000	$49,430,000	57.6%	33.3%
1973	$7,500,000	$4,500,000	60.0%	$27,500,000	$32,000,000	$21,141,823	$56,141,823	57.0%	37.7%
1974	$7,500,000	$3,500,000	46.7%	$29,000,000	$32,500,000	$25,735,952	$62,235,952	52.2%	41.4%
1975	$7,500,000	$5,790,000	77.2%	$30,000,000	$35,790,000	$33,039,511	$76,539,511	50.7%	46.5%
1976	$7,500,000	$7,240,000	96.5%	$30,000,000	$37,240,000	$34,898,359	$72,398,359	51.4%	48.2%
1977	$7,500,000	$5,790,000	77.2%	$30,000,000	$35,790,000	$38,606,876	$75,566,876	47.4%	50.3%
1978	$7,500,000	$5,790,000	77.2%	$30,000,000	$35,790,000	$39,709,295	$77,209,295	46.4%	51.4%
1979	$7,500,000	$5,000,000	66.7%	$30,000,000	$35,000,000	$41,377,288	$76,377,288	44.4%	52.5%
	$60,000,000	$40,610,000	67.7%	$222,000,000 (1)	$272,610,000	$250,389,184	$542,389,184	50.3%	46.2%

Recreational Boating Safety and Facilities Improvement Act of 1980

FUNDED BY MOTORBOAT FUEL TAXES (USER FEES)

1984 Wallop/Breaux amendments created - Aquatic Resources Trust Fund - Boat Safety Account - 26 USC 9503(c)(4)
Deleted - Facilities Improvement Program & Authorized funding for Coast Guard

	State Program Authorization	State Annual Appropriated	Percent of Authorization	Dedicated CG Boating Safety Resources in the States	Coast Guard Operating Exp by Fuel Taxes	Fuel Taxes Funding State Progam & Coast Guard	State Matching Funds	Total Program Funds	Fed % Program Funds	State % Program Funds
1980	$10,000,000	$0	0.0%	$30,000,000	Not Authorized	$0	$52,300,000	$52,300,000	0.0%	100.0%
1981	$10,000,000	$0	0.0%	$0	Not Authorized	$0	$60,000,000	$60,000,000	0.0%	100.0%
1982	$10,000,000	$0	0.0%	$0	Not Authorized	$0	$62,449,915	$62,449,915	0.0%	100.0%
1983	$15,000,000	$12,500,000	83.3%	$0	Not Authorized	$12,500,000	$66,548,250	$79,048,250	15.8%	84.2%
1984	$30,000,000	$13,625,000	45.4%	$0	Not Authorized	$13,625,000	$71,178,038	$84,803,038	16.1%	83.9%
1985	$30,000,000	$13,750,000	45.8%	$0	$15,000,000	$28,750,000	$66,758,183	$95,508,183	17.1%	82.9%
1986	$30,000,000	$28,710,000	95.7%	$0	$14,355,000	$43,065,000	$65,511,263	$114,221,263	25.1%	74.9%
1987	$30,000,000	$30,000,000	100.0%	$0	$18,000,000	$48,000,000	$67,237,833	$117,237,833	25.6%	74.4%
1988	$30,000,000	$21,375,000	71.3%	$0	$21,600,000	$42,975,000	$115,204,100	$135,579,100	15.7%	84.3%
1989	$30,000,000	$30,000,000	100.0%	$0	$30,000,000	$60,000,000	$120,600,000	$150,000,000	20.0%	80.0%
	$225,000,000	$149,960,000	66.6%	$30,000,000	(2) $98,955,000	$248,915,000	$787,137,682	$937,147,582	16.0%	84.0%
					(3) $1,627,000	$1,627,000				
					$100,582,000	$250,542,000				

(1) CG Search & Rescue Costs Not Included
(2) Offset of CG Search and Rescue Costs
(3) Offset of CG Administration Costs (State Program)

* FY1986 & FY 1988 - Gramm/Rudman/Hollings reductions
FY1989 - Estimated State matching
Fuel Taxes - Estimated annual receipts - $108 million
- Boat Safety Account - $60 million
- Land & Water Conservation Fund - $1 million
- Sportfish Restoration Account (TOF) - Balance of Tax receipts

Source - State Affairs Branch
U. S. Coast Guard

NATIONAL BOATING FEDERATION

STATEMENT OF BARRY LABOW, PRESIDENT

The National Boating Federation, an alliance of national, state and regional organizations and individuals representing more than two million recreational boating families, wishes to take exception to the Coast Guard Guard Fiscal Year 1990 budget request.

We oppose withholding $15 million from federal assistance for state recreational boating safety programs, which is half the authorized level of funding for the states under the Wallop-Breaux Fund's Boat Safety Account.

We question whether the proposed budget is motivated by boating safety considerations.

It does not make sense to cut state boating safety assistance. The Coast Guard acknowledges that it is the states that are doing most of the work in the field today. The Coast Guard is doing progressively less. Moreover, the Coast Guard's share of the Boat Safety Account is absorbed into its general operating expenses budget, and there is no accountability for how much is spent on recreational boating safety services nor for what kind of services.

It seems to us that the funding mechanism of the Boat Safety Account is flawed. Year after year, there is a struggle to gain appropriations for the full level of authorized funding, even though all the funds originate in boating and are not in the least dependent on general revenues. The trouble is, anything spent out of the Boat Safety Account counts or is scored against the Transportation Department's overall budget ceiling. The question is, can anything be done by the Transportation Subcommittee so that recreational boating safety programs, which boaters underwrite out of their own money, are not penalized by the Transportation Department's budget ceiling?

You should know that we are also opposed to a proposed user fee of $25 per recreational boat operated on navigable waters for alleged Coast Guard services. User fees in this context are a thinly veiled tax. The Administration has pledged no new taxes. Boaters are therefore justified in protesting that it is patently unfair to tax them more in the guise of user fees at the same time OMB would withhold a substantial portion of user fees they are already paying in the form of motorboat fuel tax.

NATIONAL MARINE MANUFACTURERS ASSOCIATION

STATEMENT OF RON STONE, GOVERNMENT RELATIONS

The National Marine Manufacturers Association, a national trade association representing more than 1600 manufacturers of recreational boats, marine engines, and associated equipment and services, respectfully requests the Senate Transportation and Related Agencies Subcommittee to recommend appropriating the full level of authorized funds in the Boat Safety Account of the National Aquatic Resources Trust Fund for Fiscal Year 1990.

We support that part of the Transportation Department's FY 90 Coast Guard budget proposal to appropriate $30 million for the Coast Guard. However, we oppose that part which would reduce appropriations for state boating safety assistance from $30 million to $15 million.

It should be pointed out that the Coast Guard may become a casualty of cutbacks in state assistance in view of a provision in the Wallop-Breaux Fund's reauthorization that the Coast Guard shall receive no more in any fiscal year than that which is appropriated to the states.

Unless appropriated, the $15 million to $30 million difference in these dedicated trust funds will be completely lost for recreational boating safety purposes. Under terms of the Wallop-Breaux Act, money authorized but not appropriated does not remain in the Boat Safety Account accruing interest for possible future distribution for state boating safety programs. Nor does it accrue to the Coast Guard for marine safety. Instead, the money automatically rolls over to the Sport Fish Restoration Account to be used for federal aid for state sport fish management and restoration programs.

We are deeply concerned about the adverse effects of the loss of half of the states' federal aid for boating safety.

That money is the best and wisest investment in boating safety today. It produces twice as much bang for the buck, matched 50/50 by state funds, for

increased boating safety law enforcement, education, and other programs which have had a dramatic, demonstrable effect in reducing serious boating accidents. Coast Guard statistics show that the number of boating fatalities has steadily declined in the face of an increasing boat population all through the 1980s, thanks in large measure to appropriations from the Boat Safety Account. Take half that money away, and America's nearly 70 million recreational boaters safety will be jeopardized by a diminution in state facilities and services. The Coast Guard will be unable to pick up the slack because it does not have the manpower, the equipment, nor on many popular boating waters which are purely state waters, even the jurisdiction, and because, frankly, it is committed by Congress to higher priority missions.

It is widely recognized that many traditional Coast Guard functions related to recreational boating safety have been shifted to the states in the past several years.

Therefore, let the states continue to do the lion's share by appropriating to them the full level of authorized funding for boating safety patrols, free education and public service announcements, marking of aids to navigation, enforcement of laws against boating while intoxicated, search and rescue capability, responsibility for permitting and patrolling races and regattas, and public access to fulfill boating safety needs. You will help to cut back on the need for Coast Guard involvement in recreational boating safety. More importantly, you will help to reduce federal government spending for Coast Guard marine safety purposes and thereby set a good example for helping to reduce the federal budget deficit.

The Boat Safety Account of the National Aquatic Resources Trust Fund is composed entirely of funds generated by boating activity through federally collected tax on fuel used in boats. It is a perfect manifestation of the user.-pay philosophy. It would be a travesty and a breach of faith if any of the authorized funds were withheld from their intended purpose because of the Transportation Department's budget ceiling. It has nothing to do with boating safety. Recreational boaters should not be made to suffer reduced facilities and services and inevitably the consequences of paying more taxes to compensate for what they were wrongfully denied in the first place.

NON COMMISSIONED OFFICERS ASSOCIATION OF THE UNITED STATES OF AMERICA

STATEMENT OF SGT. MAJ. C.A. (MACK) McKINNEY, USMC (RET.), LEGISLATIVE COUNSEL

Mr. Chairman. The Non Commissioned Officers Association of the USA (NCOA) endorses the FY 1990 budget for the United States Coast Guard. The increases in funds requested for operating expenses, acquisition, and reserve training are essential to the future of the Coast Guard and its capability to perform the many missions assigned to that Service.

The subcommittee is well aware of the struggle in past years to keep the Coast Guard operating. Its budget growth has been minimal considering the added responsibility for naval defense of coastal areas, harbors, and offshore assets, and the increasing responsibility of drug interdiction. It is a magnificent show of leadership, dedication, and loyalty that the Coast Guard has managed so well with a budget that has been totally inadequate.

If anything is to be learned from the past it is that the Coast Guard out-performs expectations. Its smallness offers exclusive opportunities to people to become someone special and to be members of a team whose dedication is unique among the armed forces. The many missions of the Coast Guard demand that its people be multi-talented. Therein lies the pure and simple fact that the spirit of the Coast Guardsmen is far greater than the sum of his or her worth appears to be with federal money-managers.

However, this Congress and the Nation's citizens cannot expect the Coast Guard to continue to maintain its effectiveness with the current strain on personnel and equipment. The lack of shore billets, for example, is causing some Coast Guardsmen to

As "super" as our Coast Guardsmen are, they can't survive on promises of a brighter future, not while their ships, planes, equipment, and maritime systems are deteriorating at a fast pace. The Coast Guard must have the full funding as requested in the President's budget. Otherwise, that Service will be forced to cut-back on its operations.

Less funds, we know, equate to less people. The Coast Guard's active duty strength has dropped by 550 people since 1982. Of a former strength figure of 38,550, a 550 people-cut results in a dramatic reduction in overall operations. This is fact even with the application of a greater workload for each active duty Coast Guardsman and a more efficient method of performing tasks.

So, it is with anticipation that NCOA looks forward to a brighter year for the Coast Guard and its active duty personnel. And for the latter, NCOA urges this subcommittee to favorably consider the requests offered by the Association to provide the items listed below, oppose those that are so noted, or where necessary encourage the Armed Services Committee to take the appropriate action.

o Increase active duty strengths by 500 so there are more shore billets to alternately assign personnel from ship-to-shore duties on a more regular basis.

o Expand child care facilities at Coast Guard shore stations and offer allowances to Coast Guardsmen stationed in areas where there are no federal facilities available within a reasonable commuting distance.

o Increase Variable Housing Allowances (VHA) so that Coast Guard personnel residing off-station in a civilian community pay out-of-pocket expenses of only 15 percent of

housing costs, as originally intended in law. (Currently, members are forced to pay nearly 21.5% of cost.)

o Increase basic pay and basic housing and subsistence allowances by 3.6 percent as recommended in the President's FY 1990 budget. (Members are currently being paid some 10 percent below comparable civilian wages.)

o Offer 100 percent CHAMPUS coverage for the dependents of active duty Coast Guard personnel residing with their sponsors on assignments outside military catchment areas (40 miles from the nearest federal facility providing health care to government-sponsored families).

o Include certain active duty enlisted personnel in the statute authorizing separation pay for all others, including officers, warrant officers, and civilians.

o Reimburse personnel for all legitimate costs incurred as a result of a permanent change of station (PCS) at the same level as authorized civilian employees of the Coast Guard.

o Improve health care in federal treatment facilities made available to Coast Guard personnel, active and retired, and their eligible dependents.

o Oppose any move to implement a user-fee or co-payment plan for obtaining health care in military or federal treatment facilities available to retired Coast Guard personnel and the dependents of active duty and retired members.

o Amend the Survivor Benefit Plan (SBP) so that it is more attractive to servicemembers and provide a plan that compares to that authorized for paramilitary employees of the federal government. One recommendation is to provide an across-

the-board annuity of 50% of the base amount of the member's covered retired pay regardless of the age of the surviving spouse. (Ref: 10 U.S.C. 1450).

o Amend current statutes to authorize all members participating in the RSFPP to convert to the Survivor Benefit Plan upon request and to withdraw from participation in RSFPP whenever the beneficiary or beneficiaries pre-decease the member or are no longer eligible for an annuity under the plan. (Ref: 10 U.S.C. 1436(b)).

o Deny any proposal to cancel the 1990 COLA to Coast Guard retired pay and survivor benefits and the one (1) percent reduction in subsequent COLAs for 1991 and thereafter unless social security COLAs are given identical consideration.

In the personnel-picture, NCOA does not forget the members of the Coast Guard Reserve. These men and women train to augment the active duty component in time of war, national emergency, or natural disaster. It is imperative that adequate training funds be provided this cadre so that its members, when called upon, are prepared to perform the tasks required of their active duty counterparts.

For the reservist, NCOA seeks the subcommittee's support for an amended reserve retirement point system. The proposal, suggested by the 6th Quadrennial Review of Military Compensation, would offer the reservist a maximum of 75 points per annum rather than the current limit of 60.

Mr. Chairman. The Association appreciates the opportunity to express support for a gallant organization that it believes should be an independent agency. But realizing that such a step may not be feasible or appropriate, NCOA urges that serious attention be given to adequately funding the Coast Guard.

As a recent magazine article noted: "(I)f the nation wants its coasts protected, its environment laws enforced, its sailors saved, and its (sic) drugs interdicted" ... the Coast Guard's funding plight must be cured.

Only Congress can do that.

RESERVE OFFICERS ASSOCIATION OF THE UNITED STATES

STATEMENT OF COMDR. WILLIAM E. LEGG, USNR (RET.), DIRECTOR, NAVAL AFFAIRS

Mr. Chairman and members of the committee:

It is my pleasure to address this committee concerning the Fiscal Year 1990 Budget request for the United States Coast Guard.

As it enters its 200th year of service to our nation, the Coast Guard is once again demonstrating its multi-mission capability and flexibility through its role in the massive environmental clean-up operation following the EXXON Valdez incident. The Coast Guard is truly a unique Armed Force, the only one with important peacetime functions enforcing a variety of our nation's laws plus a significant role to play as a specialized branch of the Department of the Navy upon mobilization. Adequate funding to perform the spectrum of assigned tasks is essential for an effective Coast Guard.

COAST GUARD FUNDING

Funding of the Coast Guard has been an issue for the past several years. It has taken extraordinary action by the Congress each of these years to correct either the previous year's underfunding or the unwarranted reductions to the Coast Guard budget to fund other transportation functions.

All too often, the source of the needed funding has been the Department of Defense. It should go without saying that solving the problem of an under funded Coast Guard by diverting Department of Defense resources is no longer an option. Congress recognized this fact last year when reports accompanying the FY89 DoD appropriations bill included the warning that FY89 would be the last year that the Department of Defense would provide funds to the Coast Guard.

Over the past several years the Coast Guard has taken several actions to improve their efficiency. They have reduced overall military manpower, reduced their headquarters staff, and streamlined their field operations structure. All these actions were performed simultaneously with increases in hardware (aircraft and patrol boats) provided by Congress to increase drug interdiction operations. Today's Coast Guard is leaner with more operational capability.

POLAR ICEBREAKER

One item in the Coast Guard budget request which is likely to be the focus of attention is the request to authorize $244 million for a new icebreaker. The focus on the icebreaker is likely to be because its cost looms so large in the modest Acquisition, Construction and Improvements (AC&I) appropriation rather than on the fact that there is an urgent need for this ship. ROA has consistently recommended the acquisition of two new polar class icebreakers to replace at least some of the capability lost by the decommissioning of old icebreakers. As recently as 1987 the Coast Guard operated five icebreakers. Today there are only two. By comparison, the Soviet Union has 17 polar icebreakers, Canada six, and Japan two. ROA strongly recommends approval of this first of two much needed icebreakers.

SELECTED RESERVE

The Budget request includes a slight increase in Selected Reserve strength to a fiscal year 1990 end strength of 12,950. This "growth" will still leave the Coast Guard Selected Reserve at less than 50 percent of validated mobilization requirements while the Selected Reserve of the other Armed Forces exceed 95 percent.

In addition to the overall constraint on growth of any program because of fiscal pressures, two issues have worked against needed growth in the Coast Guard's Selected Reserve.

First is the fact that the Coast Guard Reserve budget is heavily weighted toward personnel costs--more than 85 percent is allocated to personnel functions. Therefore, although Congress authorized an end strength of 13,000 for FY89, the funds available will only support a full training program for 12,100. The requirement to absorb such items as a pay raise increase requires reducing the number of personnel to be paid. Therefore, it is most important that funds be made available to match the personnel strength authorized.

The second issue which has been used as a constraint on Selected Reserve growth was the lack of a formal plan to meet requirements. Congress recognized this fact and directed the Department of Transportation to develop a plan to reach 95 percent of the Coast Guard's Selected Reserve mobilization manpower requirements by the end of FY98--a so-called 10 year plan. ROA has encouraged the development of such a plan, and now that it has been approved, strongly recommends that it be implemented.

Unfortunately, the Administration's budget request does not match their own plan. A bill has been introduced (HR 1342) which would make modest adjustments to the Selected Reserve end strength and put the Coast Guard "on plan." ROA supports this action and will encourage the House Armed Services Committee to increase the authorization request for FY90 by the 625 Selected Reserve end strength necessary to reach the plan level of 13,575. We request that this committee add the $2.7 million needed to support the revised end strength to the $73.8 million already requested for the Reserve Training appropriation. In addition, ROA recommends that Congress direct the Department of Transportation to support their own plan in future budget requests.

In summary the Reserve Officers Association strongly supports funding the Coast Guard at a level at least at that requested in the Reagan Budget submission, a relatively modest $3.4 billion. In fact, the growth of the Coast Guard Budget request from FY89 to FY90, not considering the icebreaker, is only 3.6 percent, a figure less than inflation. As Admiral Paul Yost has said, "There is no slack" in this budget. Additionally, and equally important, is our recommendation that the Coast Guard be funded solely from their own appropriations.

Thank you for the opportunity to present the position of the Reserve Officers Association on the Coast Guard Budget. I would be pleased to respond to any questions at this time.

URBAN MASS TRANSPORTATION ADMINISTRATION AND AMTRAK FUNDING

NATIONAL ASSOCIATION OF RAILROAD PASSENGERS

STATEMENT OF ROSS CAPON, EXECUTIVE DIRECTOR

Thank you for this opportunity to present the views of our non-profit, consumer-oriented organization. We appreciate the key role this subcommittee has played in helping Amtrak and mass transit survive eight years of a Reagan Administration that never grasped their importance. We realize these programs are not yet "out of the woods" and that saving them in the coming years may require just as much hard work as during the Reagan years.

I. WHERE IS THE NEW ADMINISTRATION?

According to an editorial in March Progressive Railroading, in a speech to a Railway Supply Association luncheon in Chicago, Secretary Skinner's references to aviation "sparkled in contrast with his railroad comments"; even to this audience, he said nothing about rail's ability to help alleviate urban congestion.

And the Urban Mass Transportation Administration just issued a notice of proposed rulemaking which amounts to another attack on rail transit. The notice acknowledges that "Federal funding availability will not" even "be sufficient to support all" new rail proposals that pass the administration's own very tight guidelines, and seeks comments on further ways to make tough choices among these projects--suggesting, for example, that, where 2 applications show equal non-federal funding, preference should go to the project with the largest proportion of private funding. (Federal Register, Apr. 25, pages 17878-92, comments due June 26.)

We think it absurd for the administration to tell Congress the Reagan budget's transit funding level is adequate while admitting in the Federal Register that this level will not support all rail projects meeting the administration's own criteria!

The administration rationalizes this by distinguishing between "basic needs" and new rail projects. Basic needs, as defined in a March 29 letter I received from then-Urban Mass Transportation Administrator Alfred A. DelliBovi, are "special transportation needs of the elderly and handicapped, capital for replacement and rehabilitation projects, and operating assistance to areas most dependent on Federal aid, namely small cities and rural areas." For these purposes, said Mr. DelliBovi, "the Reagan Administration considered the $1.6 billion mass transit budget to be a fair and realistic plan."

In his appropriations testimony of the same month (March 1989), DelliBovi gave the impression that the Bush Administration agrees there is no federal responsibility to fund new rail projects. We hope this will change under Mr. Clymer because we believe new rail projects are basic needs.

First, the table on the next page shows that absence of rail transit correlates with very high per-capita gasoline consumption;

Second, our 3-page attachment documents the effectiveness of new U. S. light rail transit systems;

Third, we desperately need to reduce the rate of growth of automobile vehicle miles traveled (VMTs), which have been growing at 3.5% annually. The Environmental Protection Agency projects that, after 1995, emission reductions from replacing older, more polluting autos will cease and total mobile-source emissions of the four major urban pollutants will increase again for the first time in 20 years. Denver's widely-heralded oxygenated fuels program, which cut emissions per VMT 9%, saved the equivalent of just 2 years' VMT growth! Therefore, simply maintaining existing air quality, will require strong Clean Air Act provisions mandating VMT reductions, increased use of mass transit, and increased recognition of the need for transit-oriented land-use planning.

Fourth, there is a growing awareness that building highways will not prevent or eliminate gridlock, admitted both by DOT in its recent biennial report to Congress on the state of the nation's roads, and widely apparent nationwide--not just on the East and West Coasts. The Feb. 27 Kansas City Star included an article, "KC roads cannot hold future traffic, report shows," stating that "as many as 50 Kansas City area traffic arteries, even some still in the planning stages, will be crammed with more traffic than they can handle by 2010, according to a recent traffic projection....area residents could be sitting in Los Angeles-style traffic jams within 20 years unless drastic changes are made...."

Energy efficiency (including less dependence on imported oil), safety, and mobility for those who cannot drive are other reasons to emphasize transit.

	GASOLINE USE MJ PER CAPITA (METRO AREA*), 1980	PROPORTION WORK TRIPS BY TRANSIT 1980
Denver outer area	137,000	
Houston	74,510	3.3%
Phoenix	69,908	2.2%
Detroit	65,978	4.1%
Denver	63,466	6.5%
NY outer area	59,590	
Los Angeles	58,474	7.7%
San Francisco	55,365	17.0%
Boston	54,185	16.1%
Washington	51,241	14.1%
Chicago	48,246	18.3%
New York	44,033	28.3%
Toronto	34,813	31.2%
Perth	32,610	12.0%
Brisbane	30,653	16.6%
Melbourne	29,104	20.6%
Adelaide	28,791	16.5%
Sydney	27,986	29.5%
Hamburg	16,671	41.0%
Frankfurt	16,093	19.0%**
Zurich	15,709	34.0%
Stockholm	15,574	46.0%
Brussels	14,744	26.7%
Paris	14,091	39.8%
London	12,426	39.0%
Munich	12,372	42.0%
Central NY***	11,860	
West Berlin	11,331	37.0%
Copenhagen	11,106	31.0%
Vienna	10,074	44.9%

Amsterdam	9,171	14.0%**
Tokyo	8,488	59.0%
Singapore	6,003	59.6%
Hong Kong	1,987	62.2%
Moscow	380	74.0%

Notes: * Except where otherwise noted
** 27% and 28% in Frankfurt and Amsterdam, respectively, walk /bicycle (vs 15.3% in Hamburg, 24.0% Moscow, 24.9% Tokyo)
*** Mostly Manhattan
U. S. cities are the biggest gasoline consumers in the world, "being on average some twice as high as the Australian cities, nearly 4 1/2 times higher than the European cities, and 10 times greater than the Asian cities...average over 1 1/2 times higher than Toronto." Detroit is the only big Eastern all-bus city and is the big Eastern city with by far the highest per capita gasoline consumption.
40% variation between Houston and New York.
--LEARNING FROM THE BEST AND WORST: TRANSPORTATION AND LAND USE LESSONS FROM 32 INTERNATIONAL CITIES WITH IMPLICATIONS FOR GASOLINE USE AND EMISSIONS, by Jeffrey R. Kenworthy and Peter W. G. Newman, School of Environmental and Life Sciences, Murdoch University, Perth, Western Australia (1988)

We continue to believe that, if Amtrak and transit must be "made whole" by taking funds from other transportation programs, highways and aviation are the logical problems to "raid." Cuts of the magnitude needed to fund Amtrak and transit adequately would be least noticed in the huge highway program. Furthermore, we believe that much of what states call "highway needs" merely reflect the failure of states to adequately utilize rail transportation and land-use planning compatible with rail transit.

We think Chairman Lautenberg was on target in your Feb. 23 hearing when he told Secretary Skinner "I'm concerned that, if we don't encourage transit, we'll encourage more highway use, more congestion, more pollution." Aviation spending rose 125% from the last Carter budget to the recently-proposed Reagan budget; Coast Guard rose 69%; Federal Highway rose 28%; while rail (including Amtrak and transit) were cut. We believe the most environmentally benign modes of transportation, the most efficient users of land and energy, should be in line for budget increases for a change.

One forward-looking thinker is Santa Clara Supervisor Rod Diridon, "father" of the Santa Clara light rail system. The attached newspaper article reports on the number of new rail links the county is studying and notes Diridon's statement that "if we don't build these projects, we'll be dead in the water." When jurisdictions of similar size across the nation come to the same realization, the need to change federal transportation policies will be much more widely understood.

All-bus transit systems, HOV lanes, and "more efficient use of more efficient cars" are simply not adequate to do the job!

II. AMTRAK

We support Amtrak's request of $656 mill. plus Northeast Corridor Improvement Project funding of $56 mill. for Fiscal Year 1990. Amtrak is a bargain! As Amtrak grows, so does its positive contribution to several problems that afflict our overall transportation system: road and airway congestion; energy efficiency; negative environmental impacts; safety; reliability

during snowstorms/rain/fog; and mobility for many smaller communities.

Fiscal Year 1988 was the 6th consecutive year in which travel on Amtrak increased (to 5.7 billion passenger-miles) and the 7th consecutive year in which Amtrak's revenue-to-cost ratio improved. Travel increases on Amtrak are in spite of sharp fare increases. As Amtrak Pres. W. Graham Claytor Jr. noted in a letter published in the Mar. 9 Journal of Commerce, since 1981, Amtrak fares rose an average 48%--while air fares fell 6% and gasoline prices declined 30%.

With airports and highways congested and rail lines underutilized, the fare trends just noted--encouraging people to shift to the most-congested modes--emphasize the absurdity of what passes for "U. S. transportation policy." High Amtrak fares reflect Amtrak's equipment shortage and the strong desire of growing numbers of Americans for alternatives to highways and airports. This desire is also reflected in the stunning increase Amtrak has experienced in telephone calls to its information and reservation bureaus: Amtrak expects 36 million calls this year (including one million to automated answering-machines offering fare and schedule information in a few key markets), up from 30.7 million last year and 27.4 million in FY 1986. (Amtrak strives to handle 95% of calls received--same as airlines' average.)

Amtrak has begun taking delivery of 100 Bombardier coaches for corridor service. To acquire Viewliner cars to replace elderly Heritage cars on Eastern long-distance services (of which New York-Florida is the biggest), Amtrak desperately needs $50 million (which Amtrak Pres. Claytor says he could match with an equal amount of private capital). Federal Railroad Administrator John H. Riley testified a year ago that the purchase of Superliners (the double-decker Western counterpart to Viewliners) "within the year reduced unit maintenance costs 50%" and said Viewliners could produce the same results in the East.

Claytor has said Heritage cars could continue to operate during the summer and vacation holidays, giving Amtrak an economical way to expand its fleet during peak periods. (Actually, one reflection of the public's demand for rail service is the fact that Amtrak demand for space on long-distance trains has remained strong on a year-round basis since the summer of 1987!)

We support the proposals in Amtrak's 1989 Legislative Report. Of particular note is a proposal also supported by the Reagan Administration (and apparently the new administration as well): extending to Amtrak the benefits commuter railroads already enjoy--unemployment insurance premiums to be based on each individual railroad's employment record. For Amtrak this would mean an $8 million/year savings.

Also, allowing Amtrak to issue tax-exempt bonds to the public would remove one of many federal government practises that militate against balanced transportation. Consider this statement by Robert J. Aaronson, director of aviation of the Port Authority of New York and New Jersey: "It is inconceivable that a modern airport, which under the existing tax code includes such public service accommodations as terminals and their related retail stores, runways, hangars, loading facilities, cargo buildings, parking areas and maintenance bases, as well as appropriately sized inflight meal facilities, hotels and meeting facilities, could be provided on any adequate scale by taxable financing" (Aviation Week & Space Technology, Sep. 16, 1985).

We support Amtrak's proposal that Amtrak not be liable for punitive damages. Of course, Amtrak would continue to be liable for "special" damages--those supported by specific bills from doctors, hospitals, etc.--and "general" damages to cover pain and suffering and compensate for permanent injuries. Punitive damages are intended to make an example of the defendant; with the federal government (and some transit authorities) already exempt from punitive damages, it seems logical to exempt federally-supported Amtrak as well.

Finally, we also support Amtrak's proposed 3-year trial switch from Federal Employers' Liability Act to state worker compensation programs, oppose efforts to force states to pay 100% of Section 403(b) costs, and question the wisdom of the Administration's suggestion that so-called cross-subsidies to Northeast Corridor (NEC) commuter agencies be eliminated forthwith.

The 403(b) change, whether implemented overnight as FRA has proposed or gradually as Amtrak seems to favor, would worsen one of the most serious shortcomings in U. S. transportation policy: lack of federal matching funds for state railroad projects.

The NEC commuter issue must be viewed in the context of 8 years of Reagan Administration savaging of the transit budget, the fact that NEC commuter agencies are already implementing harmful fare increases (and New Jersey Transit is considering eliminating many heavily-used trains and buses), and growing national recognition of the need to maximize incentives to increase --not decrease--use of public transportation for daily commuting.

For the long term, we strongly support Amtrak's suggestion that the Highway Trust Fund be used to fund Amtrak; ideally we would like to see a consolidated transportation trust fund. This approach should be used to fund Amtrak and to support state railroad projects.

III. STATE RAILROAD PROJECTS

Federal transportation policy heavily influences state and local transportation spending. As one rail official told me, the first question they ask in our state capital is: "How much federal funding would this project generate?" The lack of federal matching funds for railroad projects--in contrast with generous federal funding for highway and aviation projects--often discourages state and local governments from giving rail passenger investments the consideration they deserve.

There are also serious rail freight needs, particularly where financially weak railroads are involved. Balanced transportation requires some semblance of balanced federal transportation spending!

IV. URBAN TRANSPORTATION

We believe growing pressure in cities around the nation for rail transit, especially light rail, is healthy and that well-planned rail systems will be appreciated by increasing numbers of users and "experts" as time passes. Demand for transit will increase in response to:

o the change we hope to see in federal tax law, eliminating the law's present pro-auto (parking)/anti-transit "tilt"--we greatly appreciate Senator D'Amato's leadership on this;

o gasoline price increases and supply problems, the return of which energy experts have long forecast. Although they are

speaking for the longer term, 1989 itself could be interesting. An April 17 Journal of Commerce news story, "Motorists Are Warned to Brace For Further Gasoline Price Hikes," said "with the debut of the summer driving season only 6 weeks away, the U. S. refining industry may not be able to produce enough gasoline to meet demand" and quoted a Houston refining consultant thus: "There's not a place in the world that can offer a major increase in gasoline imports to the United States";

o the growth of transit-oriented development, whose construction and ridership impact usually follows rail line openings by a number of years; and

o the requirements of the forthcoming Clean Air Act, which, if it is to have any meaning, must include strong measures to reduce growth of auto travel, including stiff parking charge increases.

We are concerned about all-too-common "cheap-shot" attacks on new rail systems. The worst was at a Montgomery County (MD) Council hearing last year on a proposed Silver Spring-Bethesda line: a consultant hired by a country club opposed to light rail ridiculed the new Santa Clara County (CA) light rail line by comparing projected ridership of some 15,000 with actual ridership of about 500. He failed to note that only a glorified test track was operating--another segment opened last June and ridership now exceeds 6,000, but the final and crucial segment serving residential areas south of San Jose will not open until August 1991, delayed by a lawsuit over the freeway with which this final segment will share right-of-way.

Of greater concern is the constant anti-rail drum-beat from UMTA and a handful of its allies in the academic world. UMTA's attitude is reflected in the condescending words of Mr. DelliBovi, quoted in the July 23, 1988, New York Times: "A lot of people like trains. They got them as kids for Christmas. Some people agitate for trains regardless of need."

Time magazine of September 12, 1988, in the cover story on gridlock, obviously relied heavily on UMTA for what little was said about transit, and the anti-rail bias showed. Time attacked Washington's Metrorail for having a farebox cost recovey ratio of "only" 70%, then praised the Shirley HOV lanes serving the Virginia suburbs. Time did not report the cost-recovery of the buses using those lanes: about 30%.

The current battleground for rail transit is Seattle, which Harvard Economist John F. Kain says "is just not rail country. It does not have the population and employment densities and so on to justify it." This is the same John Kain who said a year ago, "I continue to be puzzled by the persistent popularity of light-rail transit. LRT seems to me to be nothing more than a slow and expensive bus that...is unable to operate on city streets."

On the contrary, light rail combines the market-identity advantages of more expensive subway systems with the ability of the bus to make frequent stops and, where appropriate, to run on city streets. Light rail produces no local air pollution and much less noise pollution than do buses. Capacity-per-vehicle is higher with rail; so is the ability to attract riders.

In the words of Prof. Vukan Vuchic, a University of Pennsylvania professor of transportation engineering, "When people say American cities have low density...they are correct. But we have rail systems serving areas with low densities more efficiently than bus systems. Rail is invigorating for a city. It's nonsense to say people don't want to ride trains."

We don't ask UMTA to uncritically endorse every rail project placed before it. We do think UMTA should stop appearing to be just plain anti-rail and look at how rail systems might be designed to be more efficient.

We were pleased to note Secretary Burnley's comments, in a January 19 Journal of Commerce interview, that "you cannot [continue to develop surface transportation] by simply trying to find more grass to pave over....The citizenry isn't going to support that much more pavement. And I happen to think that's probably right. That's not what we need to do in any event. It would, in fact, be very inefficient. What we've got to do is a far superior job to what we're doing today in using the system we've got....But my great fear, my dread, is what we are in fact already seeing out of the AASHTO iron triangle, which is: 'Let's just find more grass to pave as an answer to the problems of the 21st century.' And the country ain't gonna buy it."

Burnley has not become a rail advocate, of course. Rather, he seems to belong to the "all-we-need-is-more-efficient-use-of-more-efficient-cars" movement. Like Burnley, we would love to see peak-hour pricing of highways, but we don't think the public would allow this until they are given an alternative way to go, which in many cases should be rail transit.

Finally, DOT should check more closely on a concept which has been gaining currency outside the U. S.: modern traffic circles (think of them as "all-way yield" intersections), which have been found to improve intersection capacity and safety, and which an Australian report recently called "the traffic management success story of the decade."

LIGHT RAIL TRANSIT:
A COST-EFFECTIVE AND SUCCESSFUL TRANSIT MODE

Light rail transit (LRT) systems are operating successfully in more than a dozen cities across the country and in the study or design/engineering phase in many others. New LRT systems, like those in San Diego, CA and Portland, OR have attracted strong ridership, encouraged more energy-efficient land use patterns and enjoy strong support from the business community and public. Attesting to LRT's success is the fact that efforts are underway to expand and build upon the initial legs.

The following information demonstrates that LRT is a cost-effective, environmentally sound and efficient means of tranporting people within urban areas. More cities are likely to turn to light rail in the years ahead as a key part of the solution to growing urban congestion and pervasive air pollution problems.

I. COST-EFFECTIVE HIGHWAY ALTERNATIVE: The Congressional Budget Office (CBO) estimates the cost of a new toll road at $25 million/mile; new urban interstates generally cost far more, encounter strong citizen opposition and frequently the r-o-w needed is simply not available.

TABLE 1: Costs of Selected New and Planned LRT Systems

LRT Project	Completion	Length	Total Cost (millions)	Cost/Mile
San Diego, CA				
South Line	1981	15.9 mi	$117	$ 7.3
Euclid Line	1986	4.5	34	7.5
El Cajon	1989 (June)	11.5	108	9.4
Portland, OR	1986	15.1	214	14.2
Sacramento, CA	1987	18.3	176	9.7
San Jose, CA	1991	20.0	420	21.0
Phase I	1987	6.5		
Phase II	1988	2.5		
Phase III	1991	11.0		
St. Louis, MO	1992	18.0	288*	16.0

*Plus donated local assets of bridge, r-o-w and tunnel

It is noteworthy that new LRT systems have often been constructed at less than estimated cost and completed earlier than expected: Portland's LRT came in $114 million under the $328 million in its full funding agreement with UMTA. San Diego's new El Cajon line is coming in under budget and on time.

II. LOW OPERATING COSTS: With labor constituting about 80% of transit vehicle operating costs, the ability of light rail transit to carry more people per vehicle than a bus (and to carry several railcars/trip) results in significant operational savings. A bus can carry about 70 passengers in the peak hour compared to 166 maximum in a light rail car. When several LRT cars are run together in the peak hour, as is typical, the carrying capacity is that much greater.

TABLE 2: PEAK HOUR PASSENGER RIDERSHIP
SAN DIEGO AND PORTLAND LRT EXPERIENCE

LRT System	Peak Hr Pssgrs. in Peak Direction
Portland	2,000 passengers 2 car trains (250 passgrs/train) 8 trips/hr
San Diego*	2,000 passengers 3-4 car train (450-500 passgr) 4 trips/hour pk. direction

* NOTE: While San Diego LRT has a morning peak, its south line maintains strong bi-directional ridership throughout the day

HIGHWAY CAPACITY: For reasons of comparison, an "uncontrained" freeway has a maximum capacity of 2000 vehicles/hour or 2200 people (assuming 1.1 persons/car); with typical constraints such as trucks and curves, maximum freeway capacity is more like 1800 vehicles/hr or 1980 people/hr. Arterial roads to which LRT's also provide a cost-effective alternative, have a maximum capacity ranging from 1200-1500

vehicles/hr or 1320-1650 persons/hour (high end assumes an arterial with few intersections and the lower end, more typical with regular intersections).

III. REVENUE-COST RECOVERY: LRT systems are showing strong revenue recovery; in Portland and San Diego, the LRT systems are recovering much higher revenues from the farebox than the regional bus systems.

TABLE 3: LRT vs. BUS REVENUE RECOVERY
SAN DIEGO AND PORTLAND EXPERIENCE

CITY	LRT FAREBOX RECOVERY	AREA BUS RECOVERY
Portland	65% of costs	31% of costs
San Diego	92% of costs	45% of costs

IV. RIDERSHIP: LRT systems that have opened in recent years have experienced ridership beyond initial projections and enjoy strong business community and general public support.

TABLE 4
RIDERSHIP ON VARIOUS LRT SYSTEMS

System	Ridership	
Portland	Projected (1st yr):	17,000/day 3.0 million/yr
	Actual (1st yr):	19,900/day 7.2 million/yr
San Diego	1981 Riders (1st yr):	11,000/day
	1988	:30,000/day
Pittsburgh	1987 Ridership	:23,194/day
	1988	:28,176/day
	% Change	: +19.4
Buffalo	1984 (1st segmt)	:sev.thous/da
	1986 (fullsystem)	:30,000/day

New Transit Studies Will Consider Trolley, Train, BART Expansion

[From the San Jose Mercury News, Apr. 5, 1989]

By Thomas Farragher
Mercury News Staff Writer

The Santa Clara County Board of Supervisors approved $3.9 million in studies Tuesday to help determine how to expand the valley's transit system — a move supervisors called crucial to the county's 21st century economy and ecology.

Among the transportation projects to be scrutinized is an extension of the new trolley system from the San Jose arena site through San Jose State University to Eastridge Shopping Center in East San Jose, and along Capitol Expressway. That study will cost $100,000.

"We're growing so rapidly that unless we build these projects we're out of business both economically and environmentally," Supervisor Rod Diridon, the board's chairman, said before the studies were unanimously approved.

He said the next step — accumulating funds from federal and state sources to build the systems — will not be so easy. "I know it can be done, even though it seems like a huge bite," Diridon said.

Money for the studies will come from the county transit district's general fund reserve.

The studies will examine new projects or extensions of existing ones, including:

✓ A CalTrain extension to Gilroy. The project could attract new riders at an estimated cost of $7.80 per rider, much lower than the per-rider cost of the current express bus service. The initial engineering study will cost $1.3 million.

✓ A $500,000 long-range study to decide what level and types of investment the county needs to make in CalTrain over the next 20 years.

✓ A $400,000 study of a possible BART extension to the South Bay.

✓ A $500,000 study to consider a possible trolley line extension to Campbell, Los Gatos and additional sections of San Jose. The study will complete a state environmental report.

"Each of these studies needs to be completed so we can get a grasp of what we really need to do and how we can work with the state," said Supervisor Susanne Wilson.

Diridon has said that neither of the proposed light-rail extensions — to Eastridge and along Capitol Expressway — is likely to go into service before the year 2000. Light-rail extensions to North County, Milpitas and Los Gatos have a higher priority, he said.

Robert Scott, the county's deputy transit director for planning and property, said most of the studies will be finished by the end of the year.

"These are the first real concrete steps the county is taking to develop the next phase of major public transit improvements that were spelled out in the Transportation 2000 study approved a year ago," Scott said.

"These are essential steps to either take the project toward construction or try to get additional federal or state funding."

STATEMENT OF THE COMMITTEE ON PASSENGER TRANSPORTATION, RAILWAY PROGRESS INSTITUTE

The Passenger Transportation Committee of the Railway Progress Institute submits for the record the following comments relative to Fiscal Year 1990 appropriations for the U.S. Department of Transportation.

RPI is the international trade association of suppliers to railroads, Amtrak, and the nation's commuter and rail transit systems. The Committee is comprised of 50 companies whose customers are these various rail passenger systems.

National Transportation Policy

The United States Congress has consistently recognized the need for a core level of Federal support for urban transit, commuter systems, and intercity rail passenger services. Indeed, Congress has resisted recent efforts to eliminate Federal support of these vital transportation modes.

We concur in this commitment. We urge that it be continued.

As indicated in our policy statement, we support Secretary Skinner's proposal to develop a national transportation policy. We believe this could be a useful tool for allocating Federal, state, and local funds, together with those from the private sector, towards the creation of a balanced national transportation system. We intend to offer our assistance in every way possible to help DOT develop this policy.

Urban Mass Transportation Administration

The Federal funding provided in Fiscal Year 1989 for UMTA is at a bare subsistence level for mass transit. We urge that transit program funding for Fiscal Year 1990 match that authorized by the Surface Transportation and Uniform Relocation Assistance Act, roughly $3 billion. To fund this Federal commitment, we believe that all the revenues from the one-cent-per-gallon user charge on motor fuels that was dedicated to funding mass transit systems in previous legislation must be used for transit, not to offset the budget deficit. We recognize the need to attack the budget deficit

problem, not only in FY 1990, but in the years beyond. To meet this need, and to maintain the requisite level of Federal support, we urge the Congress to begin an assessment, during this session of the Congress, of the possibilities of increasing the highway user fee to support all modes of surface passenger transportation. Not only would this offer a consistent, dependable source of funding for these vital components of our national transportation infrastructure, but it would help alleviate the budget deficit problems.

We support the Administration's efforts to increase the role of the private sector in transit. This initiative has great potential and has been successful in some smaller transit properties. It certainly should be encouraged. However, the private sector initiative should not become an excuse to cut transit funding below the core level of Federal assistance.

As we have stated in previous statements to this Subcommittee, one major task of our Committee over the past ten years has been to advise the Department of Transportation and the Congress about our concerns with the one-sided competition we face from overseas suppliers who have understandably taken advantage of the open U.S. market from the safety of their protected home countries. The Surface Transportation and Uniform Relocation Assistance Act of 1987 strengthened the Buy America provisions for transit procurements. We believe this will go a long way towards, if I can use a time-worn phrase, leveling the U.S. transit market playing fields. However, we urge Congress to require UMTA to ensure full compliance with this law. The law was passed more than two years ago, and not only are the regulations implementing the law not issued in final form, but we have serious concerns with the lack of commitment by UMTA to enforce them. We will be working with the House Public Works Committee when they hold hearings in late summer to further examine UMTA's enforcement of the law.

National Railroad Passenger Corporation

We believe that the existing national rail passenger transportation system must be continued through funding at the level Amtrak has requested for Fiscal Year 1990. Without Amtrak a balanced national transportation system is not possible. Amtrak's management is outstanding, and we wholeheartedly agree with Amtrak President Graham Claytor, that any proposal to eliminate Amtrak funding sends a negative message to the traveling public and, more importantly, to those in the private sector who might otherwise consider involvement in the financing of vital capital projects.

On another note, we have registered some concern about Amtrak's efforts to gain exemption from the Freedom of Information Act. Reasonable public disclosure requirements for publicly funded transit and rail operations have, in our experience, bolstered competitiveness and lowered prices. This does not, however, in any way effect our consistent support for Amtrak funding.

In summary, we urge the Congress to continue, at a bare minimum, a core level of Federal support for urban transit, commuter systems, and intercity rail passenger transportation.

POLICY STATEMENT
OF THE
COMMITTEE ON PASSENGER TRANSPORTATION
RAILWAY PROGRESS INSTITUTE

U.S. PUBLIC TRANSPORTATION PROGRAM .....

.....TOWARD A BALANCED PUBLIC TRANSPORTATION SYSTEM

The Committee on Passenger Transportation of the Railway Progress Institute supports DOT Secretary Skinner's call for a national transportation policy. If developed, this could be a vital step towards the creation of a truly balanced national transportation system.

We have consistently advocated a balanced public transportation system as a vital element of the overall national system. Similarly, we have recommended a continued program of Federal support for urban mass transit, commuter rail, and intercity rail passenger systems. Together with our road, waterway and airway

systems, these vital ground-based passenger carrying modes must continue to receive their fair share of support. Without a balanced national transportation system, the cost impact on isolated transportation infrastructures would continue to be an ever-increasing burden to the nation.

THE NEED

Development of a national transportation policy targeted at developing and maintaining a national transportation system would provide a useful tool for the efficient allocation of national resources in support of such a system.

The worthwhile search for a national transportation policy, however, should not become an excuse to reduce the Federal support of our national transportation infrastructure. Rather, it should incorporate an analysis of how this national resource should best be maintained and expanded -- in short, it should look for new sources of financial support where necessary.

The need for an improved national transportation system was never greater. Highways and airports are saturated. Urban streets are glutted. And from all points of view, including political, economical and environmental, we simply must stop acting as if the supply of oil is unlimited.

PUBLIC TRANSPORTATION

Existing public transportation systems have demonstrated their contribution to the well-being of our nation's society; they have been expanded and improved almost everywhere in the nation in response to public need.

The existing passenger rail infrastructure for urban America consists of commuter rail service connecting 15 major cities; rail rapid transit or light rail systems in 17 metropolitan areas; and 24,000 route miles in the Amtrak system. During the past year, Amtrak carried more than 21.5 million intercity passengers and 15.4 million commuters. That number could conceivably climb to 25- to 30-million by the year 2000. Even with a reduction of 30 percent in Federal grants over the years, Amtrak has seen an 81 percent increase in revenues since 1981. Despite this positive trend in revenues, Federal support, especially for capital equipment, must continue.

Studies and plans developed by the states of Florida, California, New York, Michigan and others concluded that improved or new rail passenger services are seriously needed to enhance and complement the capacity of other transportation modes, relieve infrastructure needs, and balance economic development of the regions.

Although the private sector can and must play a role in the development of passenger rail transportation systems, a national

transportation policy will enhance the integration of this mode into the local and regional transportation networks.

RECOMMENDED SOLUTIONS

To provide the public transportation mechanisms that are essential to a balanced national transportation system, the Committee on Passenger Transportation recommends the following:

- Commitment of transit funding through the Urban Mass Transportation Administration of at least $5-billion annually;
- Continuation of Federal support for the National Railroad Passenger Corporation at a level of $600-million; plus $75- to $100-million per year for capital needs.
- An increase in the highway user fee to provide surface transportation infrastructure and operational programs of the U.S. Department of Transportation, including those managed by UMTA, FHWA and FRA (including Amtrak); and
- Innovative Federal lending and tax incentives to underwrite a Federal infrastructure loan program.
- Incentives to promote private sector participation in public transportation.

FEDERAL HIGHWAY ADMINISTRATION AND RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION FUNDING

STATEMENT OF THE NATIONAL ASSOCIATION OF REGULATORY UTILITY COMMISSIONERS

The NARUC is a quasi-governmental, non-profit Association founded in 1889 which is comprised of the State commissions charged with the regulation of our Nation's utilities and carriers. Many of our members are responsible for the implementation of Federal safety laws relating to motor carriers, railroads, and natural gas and hazardous liquid pipelines, and are participants in Department of Transportation (DOT) programs established under those statutes. We file this statement in support of these programs.

Specifically, the NARUC wishes to express its strong support for full funding for the DOT motor carrier, railroad and pipeline safety programs for FY 1990, and in particular to urge that the Department's safety grants-in-aid programs be funded at the highest possible levels. These grants-in-aid programs provide for voluntary State implementation of Federally-mandated safety standards through the sharing of up to 50 percent of the States' cost of implementing the programs (80 percent for the motor carrier safety program).

We request the following funding levels (which are based upon full-funding of the Federal share of actual FY 1989 program costs): $60 million for motor carrier safety grants-in-aid; $9.2 million for the natural gas and hazardous liquid pipeline safety program grants-in-aid; and $3.5 million for railroad safety grants-in-aid.

These programs have greatly improved the safety of the nation's transportation systems. In addition, they provide tremendous efficiencies for the Federal government with respect to the enforcement of Federally-mandated safety standards. Leveraging limited Federal monies through the mechanism of cost-sharing is

economically efficient and provides a significant return in the form of avoided accidents. Nationally, the States, through these joint Federal-State programs, provide from about 33 percent to over 90 percent of the man-power available for transportation safety enforcement at only a fraction of the Federal funding level which would otherwise be required.

The NARUC is vitally concerned about the future of these safety programs since our members include those State regulatory agencies which are current and potential participants, and since we are charged with the protection of the public interest. We strongly oppose any effort to eliminate or reduce funding for DOT safety grants-in-aid, and we are especially concerned with the Administration's continued refusal to recognize the benefits of the rail safety program, for which it has again recommended zero funding.

The Motor Carrier Safety Assistance Program -- $60 Million

As part of the Surface Transportation Assistance Act of 1982, Congress established the Motor Carrier Safety Assistance Program (MCSAP) which provides Federal funds of up to 80 percent of a participating State's safety program costs. The MCSAP program has enabled the States to initiate or substantially increase their safety enforcement activities. Nearly all the States and U.S. territories now participate in the MCSAP program. In addition to increasing the number of safety inspections and safety management audits performed each year, the program has also improved the quality and uniformity of these activities. By requiring the adoption of Federal safety regulations as a prerequisite for funding and monitoring the States' activities, the DOT has been able to utilize the program to achieve a high degree of standardization in safety enforcement across the country.

Last year, State participation in the Motor Carrier Safety Assistance Program resulted in over 1.25 million roadside safety inspections -- eight times the number performed in 1984. These inspections resulted in almost half a million vehicles being placed out of service. Hazardous materials inspections have also increased significantly -- more than doubling in the last two years. The MCSAP has made this possible by funding the training of over 4,000 State inspectors since 1984.

Other important elements of the MCSAP program are the development of a nationwide safety information system and the safety compliance audit program. The "Safetynet" data base program, when fully implemented, will enable the participating States and the DOT to closely monitor motor carriers with high accident rates or a history of serious safety violations. The exchange of safety information will mean that companies which need assistance in the development of safety programs and those who consistently refuse to comply with safety regulations can be identified.

The safety audit program serves to ensure that carriers understand and comply with the basic safety regulations as set out by the DOT. These audits involve, among other things, the analysis of the company's driver qualification records, hours of service logs, and equipment maintenance records. The audit program supplements the roadside inspection programs and encourages companies to fully comply with applicable safety standards. The number of safety audits has increased significantly under the MCSAP program and some States are now performing these audits to ensure the safety of all companies which apply for intrastate operating authority.

Finally, MCSAP funding also contributes to State enforcement of the commercial driver's license mandated by the Commercial Motor Vehicle Safety Act of 1986.

The Administration has requested that $60 million be appropriated for the MCSAP program for FY 1990. In support of this funding level, we would stress that the success of the Federal-State partnership in motor carrier safety is increasingly evident. It is critical to the safety of our highways that both the Federal and State commitment to the uniform enforcement of motor carrier regulations be maintained at the highest possible level. Full funding of the Administration's request will help ensure that this commitment is fulfilled.

Natural Gas And Hazardous Liquid Pipeline Safety Grants-In-Aid Program -- $9.2 Million

Since its enactment in 1968, the natural gas pipeline safety program (now merged with the hazardous liquid pipeline program) has proved itself to be a model of effective Federal-State cooperation. Administered by the DOT Research and Special Programs Administration (RSPA), this program has enabled the States to employ and train over 225 pipeline safety inspectors and contribute over 93 percent of the national safety inspection effort. Forty-six State agencies, the District of Columbia and Puerto Rico currently participate in this program. In 1988, the States performed a total of 6,655 natural gas pipeline safety inspections requiring 22,120 person days to uncover 13,396 non-compliances. Hazardous liquid pipeline inspections totalled 204 in 1988, requiring 1,140 person days, and uncovering 1,054 incidents of non-compliance.

The legislation establishing this program authorized the DOT to fund 50 percent of its annual cost. However, in recent years, appropriations have continually fallen short of the authorized

amount. Last year RSPA requested $5 million in funding for State grants-in-aid, with $4.4 million ultimately appropriated by Congress -- far below the approximately $8 million which represents 50 percent of the States' actual costs [see Appendices A and B]. In FY 1989, only 26 percent of State program costs, rather than the authorized 50 percent, were appropriated for the gas safety programs, and only 10 percent of State program costs for hazardous liquids was appropriated. This year the Administration is requesting funding of $4.5 million -- a level which continues to be well below 50 percent of expected State costs.

The NARUC and its member State commissions wish to emphasize that, while we have made a great deal of progress in the area of pipeline safety, our work is not completed. In 1988, in the area of natural gas distribution, there were 170 accidents which resulted in either fatality, serious injury, or losses in excess of $50,000 each. Those accidents caused 15 fatalities and 76 injuries. In addition, in the area of natural gas transmission, 88 accidents in 1988 caused 3 deaths and 11 injuries. Finally, there were 196 pipeline accidents involving the transportation of hazardous liquids in 1988 which resulted in 2 fatalities and 19 injuries. These statistics are slightly worse that those for 1987, which may easily be a reflection of reduced funding for the safety program.

We believe that, given the fact that natural gas and hazardous liquid pipelines in the United States total one and three-quarter million miles and transport more than half of the nation's energy supply, the importance of continued funding for this program cannot be overstated. It is critical to the safety of our citizens that these pipelines, which carry large quantities of extremely volatile substances, often under high pressure and in increasingly densely populated areas, remain under the intense scrutiny made possible

by effective State inspection programs. Anything less could expose large segments of the population to risks of potentially catastrophic proportions and a disruption of vital energy supplies.

We urge the members of the Subcommittee to support the States' safety efforts by appropriating for FY 1990 at least $9.2 million which represents 50 percent of last year's actual costs for both the natural gas and hazardous liquid safety programs. We remind the Subcommittee that appropriations for pipeline safety are not funded by tax dollars, but by a user fee on the affected pipeline companies. The program is therefore "deficit neutral".

Railroad Safety Grants-In-Aid Program -- $3.5 Million

The motor carrier and gas pipeline safety programs in which NARUC members participate have been cited as outstanding examples of Federal-State cooperation. Unfortunately, the same cannot be said for the rail safety program managed by the DOT Federal Railroad Administration (FRA). The Reagan Administration's lack of commitment to rail safety -- as demonstrated by its zero funding request for rail safety grants -- is not consistent with its support for transportation safety generally and is contrary to the public interest and Congress's intent in enacting statutory safety requirements. It should also be remembered that States have been largely preempted with respect to rail regulation. In establishing a greater Federal role in railroad safety, Congress realized that Federal cost-sharing would be both efficient and equitable in terms of ensuring broad State participation.

Authorized by Congress in 1970, the FRA safety program established a railroad safety structure that involved both the FRA and State regulatory agencies which choose to participate. The program requires that State inspectors be trained and certified to enforce Federal safety regulations. This standardization of

railroad safety regulations and enforcement under the FRA created a uniform set of criteria to be applied to the railroad industry by both Federal and State inspectors, which simplified the process of safety regulation and compliance for all concerned. The involvement of the States in the rail safety regulation process brought with it a more localized or regional viewpoint, along with more intense review of railroad compliance in the respective States.

A major benefit of State involvement in the program is the ability of State and Federal inspectors to serve as cross-checks on the other's activity. For example, currently FRA inspectors are under considerable pressure to improve their productivity and, therefore, can be expected to try and boost their inspection counts by concentrating on high density rail operating locations. This will in turn result in decreased Federal inspection activity at lower density locations, creating a void which can only be filled by State inspection activity. The State inspectors, with their more frequent inspections, greater familiarity with local operating conditions and greater level of local accountability, are less likely to let pockets of unsafe conditions go unnoticed.

In addition to establishing a uniform system of regulations and enforcement, the Federal Railroad Safety Act of 1970 authorized Federal matching funds for State programs on a dollar for dollar basis. The availability of this Federal assistance made it possible for many States to participate in the rail safety program. In spite of severely reduced Federal funding during recent years, 33 States continue to demonstrate their commitment to a safe rail system.

Those 33 States have met the challenge set out in the Federal law and currently employ 111 FRA-certified inspectors who perform

approximately 33 percent of the safety inspections done each year. In the area of track safety, the States perform over 50 percent of the annual inspections. The States also provide 28.6 percent of the national inspection capability for locomotives and other equipment, 18.9 percent for railroad operating practices inspections, and 5.8 percent for signals and train control. Without the participation of the States, the FRA would be unable to meet its safety responsibilities to the public -- yet it refuses to recognize the value of obtaining more than one-third of the nation's inspection capability at half price.

Sadly, the FRA has not kept its part of the bargain. As a matter of fact, it is painfully apparent to us that they have abandoned their commitment to the railroad safety grant program altogether. The FRA has, in recent history, consistently requested zero funding for this important program. The only departure from that disturbing pattern occurred for FY 1988 appropriations, and that minimal funding request was due only to the well-publicized and extremely tragic Amtrak accident in Chase, Maryland. While funding safety programs after accidents raise the issue to public consciousness is better than no funding at all, it would be much more prudent, and efficient, to prevent the accidents from occurring in the first place.

Accidents or no accidents, the States have continued to demonstrate, year after year, their willingness to contribute to rail safety in America. The trend toward safer railroads nationwide correlates directly with active State involvement in safety enforcement efforts. We have exceeded our part of the bargain. We have spent a great deal of money on the training and certification of our inspectors. We continue to maintain our programs and enforce Federal regulations, despite the drop in Federal participation to 15 percent of State costs in FY 1988 [See

Appendix C] and to zero in FY 1989. We continue to send violations to the FRA for enforcement even when we rarely see final results of our work and the FRA collects and keeps the fines.

After years of thwarting the FRA's attempts to kill this program, State regulators nationwide were shocked when the Appropriations Committees concurred last year and zeroed out appropriations. This action must be reversed.

Members of the Subcommittee, we are quickly losing our incentive to cooperate with the FRA in this totally one-sided enforcement scheme. Whether or not States will continue to be able, or willing, to support the lion's share of this program remains to be seen, but it is indisputable that a strong Federal commitment provides leadership and encouragement to the States. We simply do not understand how the Department can be so positive with respect to the motor carrier and pipeline programs and so negative about rail safety. The programs are virtually identical with respect to the principle of Federal-State cooperation and Federal cost-sharing -- a principle which clearly works.

We believe that the long-term solution to this problem may be the passage of legislation which would give certified States the option of direct enforcement through the courts, similar to what the FRA has now. This is consistent with the enforcement mechanisms used for Federal motor carrier and pipeline safety regulations and would eliminate the majority of the problems we now experience with the FRA.

But while this may be the long-term solution, we are still faced with the immediate need for funding for FY 1990. We would strongly urge you to ignore the FRA's request for zero funding and appropriate the amount necessary to fully fund the railroad safety grant program in 1990. We therefore respectfully request that $3.5 million be appropriated for this important program.

APPENDIX A

1989 NATURAL GAS PIPELINE SAFETY GRANT ALLOCATIONS

STATE	REQUEST	ALLOCATION	% OF FUNDING
AL	$237,153.50	$105,945.00	22
AZ	$341,406.50	$129,621.00	19
AR	$106,261.00	$85,870.00	40
CA	$385,900.00	$131,989.00	17
CO	$72,626.50	$69,666.00	48
CT	$207,500.00	$106,785.00	26
DE	$14,513.00	$14,342.00	49
FL	$69,800.00	$68,759.00	49
GA	$179,945.50	$102,540.00	28
HI	$22,075.50	$20,442.00	46
IL	$190,956.00	$101,718.00	27
IN	$97,190.00	$80,375.00	41
IA	$117,950.00	$88,147.00	37
KS	$180,774.00	$98,268.00	27
KY	$193,480.00	$100,588.00	26
LA	$564,999.50	$185,662.50	16
ME	$12,260.00	$11,827.00	48
MD	$47,288.00	$43,381.00	46
MA	$282,000.00	$111,115.00	20
MI	$140,650.00	$96,637.00	34
MN	$275,403.50	$111,219.00	20
MS	$101,471.50	$83,019.00	41
MO	$163,759.50	$98,371.00	30
MT	$27,427.50	$26,043.00	47
NE	$69,122.50	$63,966.00	46
NV	$65,109.00	$63,166.00	49
NH	$45,573.00	$42,435.00	47
NJ	$217,897.00	$103,059.00	24
NM	$117,000.00	$88,727.00	38
NY	$946,576.00	$281,643.00	15
NC	$115,262.00	$88,899.00	39
ND	$26,974.50	$25,953.00	48
OH	$328,946.00	$125,949.00	19
OK	$189,715.50	$106,987.00	28
OR	$67,700.00	$66,690.00	49
PA	$216,609.50	$99,366.00	23
RI	$57,905.50	$57,905.50	50
TN	$178,534.00	$104,085.00	29
TX	$693,088.50	$219,288.00	16
UT	$48,780.00	$46,765.00	48
VT	$43,504.50	$42,918.00	49
VA	$212,921.50	$97,525.00	23
WA	$49,550.00	$48,868.00	49
WV	$136,140.50	$93,375.00	34
WI	$115,065.00	$76,978.00	33
WY	$105,336.50	$82,153.00	39

DC	$37,777.50	$37,279.00	49
PR	$16,590.00	$15,191.00	46
TOTAL	$8,134,469.50	$4,151,500.00	26

NOTE: THE 'REQUEST' REPRESENTS 50% OF THE STATE'S ESTIMATED BUDGET. THE '% OF FUNDING' IS THE PERCENTAGE OF THE BUDGET REPRESENTED BY THE ALLOCATION.

APPENDIX B

1989 LIQUID PIPELINE SAFETY GRANT ALLOCATIONS

STATE	REQUEST	ALLOCATION	% OF FUNDING
AL	$14,333.00	$8,871.00	31
AZ	$55,184.50	$18,538.00	17
CA	$681,000.00	$76,903.00	6
IA	$14,710.00	$8,967.00	30
LA	$139,300.00	$30,630.00	11
MN	$32,708.00	$13,870.00	21
MS	$9,714.00	$7,722.00	40
OK	$36,609.50	$14,713.00	20
TX	$122,309.50	$28,245.00	12
WV	$19,140.50	$10,041.00	26
TOTAL	$1,125,009.00	$218,500.00	10

NOTE: THE 'REQUEST' REPRESENTS 50% OF THE STATE'S ESTIMATED BUDGET. THE '% OF FUNDING' IS THE PERCENTAGE OF THE BUDGET REPRESENTED BY THE ALLOCATION.

Source: DOT Research and Special Programs Administration

APPENDIX C

FY 1988 RAILROAD SAFETY GRANTS

	State	FY 1988 Requested Funds	FRA Awards (1)
1.	Alabama	$152,465	$36,037
2.	Arizona	68,997	19,328
3.	Arkansas	10,319	3,410
4.	California	152,000	67,736
5.	Connecticut	16,470	2,080
6.	Florida	200,194	58,801
7.	Illinois	124,589	37,787
8.	Iowa	82,991	23,248
9.	Kansas	27,426	7,978
10.	Louisiana	80,460	7,213
11.	Maine	69,537	3,629

12.	Maryland	147,845	39,086
13.	Michigan	107,470	30,538
14.	Minnesota	51,481	15,077
15.	Missouri	84,407	26,706
16.	Montana	20,533	5,847
17.	Nebraska	53,834	16,094
18.	Nevada	30,192	6,742
19.	New Hamsphire	35,880	6,867
20.	New Jersey	45,249	12,074
21.	New York	253,871	74,657
22.	North Carolina	94,588	26,725
23.	Ohio	247,395	56,611
24.	Oklahoma	59,691	16,150
25.	Oregon	125,845	38,705
26.	Pennsylvania	250,035	74,689
27.	South Carolina	21,866	6,717
28.	Tennessee	192,241	47,912
29.	Texas	286,096	81,891
30.	Utah	0	0(2)
31.	Virginia	91,857	27,433
32.	Washington	102,438	30,900
33.	West Virginia	138,193	41,330
	Total	$3,426,460	$950,000

(1) FRA Share = 15.8197 percent, States paid remaining share of 84.1803 percent.

(2) The State of Utah decided to continue in program without a grant.

Source: Federal Railroad Administration

FEDERAL HIGHWAY ADMINISTRATION AND INTERSTATE COMMERCE COMMISSION FUNDING

STATEMENT OF THE AMERICAN TRUCKING ASSOCIATIONS

INTRODUCTION AND SUMMARY

The American Trucking Associations appreciates the opportunity to comment on the Fiscal Year 1990 budgets of the Department of Transportation and the Interstate Commerce Commission which pertain to motor carriers.

Trucking is the nation's largest freight transportation mode -- hauling more tons, employing more people, paying more taxes, and traveling more miles than any other mode. In 1987, the trucking industry, as a whole, earned $225 billion in gross freight revenue, representing 77.0 percent of our nation's freight bill and contributing five percent of the nation's Gross National Product. Motor carriers regulated by the Interstate Commerce Commission generated $61 billion.

Commercially-operated trucks paid $12.8 billion annually in state and federal highway-use taxes -- specifically, $7.8 billion in state and local taxes and $5.0 billion in Federal Highway Trust Fund contributions, or 30.5 percent of the total highway receipts while accounting for only 2.8 percent of the total number of vehicles registered.

The American Trucking Associations (ATA) is the largest trucking association in the country, representing over 4,000 trucking companies. Because it is a Federation with affiliated associations in every state and the District of Columbia, an additional 30,000 companies are indirectly represented by ATA. As such, ATA represents every type and class of motor carrier in the country, for-hire and private. As the national representative of the trucking industry, ATA is vitally interested in the appropriations of the two agencies which have a significant impact

on the industry's economic well-being: The Department of Transportation and the Interstate Commerce Commission.

ATA supports the following program needs in the Department of Transportation/Federal Highway Administration budget:

- o Fully fund the Federal-Aid Highway program;
- o Develop a more proactive highway program which will meet demands well into the 21st Century;
- o Expand the oversight of international container movements;
- o Eliminate costly paperwork burdens caused by state tax nonuniformity;
- o Conduct more truck-related research;
- o Encourage reciprocity in vehicle inspections;
- o Rationalize the penalties for vehicle safety violations;
- o Allow public comment on the Transportation Research Board access study; and
- o Establish a Motor Carrier Administration.

Our suggestions for the budget for the Interstate Commerce Commission cover two main concerns:

- o Fully funding the Interstate Commerce Commission; and
- o Requiring simplified reporting data from all regulated carriers.

U.S. DEPARTMENT OF TRANSPORTATION/FEDERAL HIGHWAY ADMINISTRATION

HIGHWAYS

The U.S. Department of Transportation's Federal Highway Administration (FHWA) administers the nation's highway systems, which are the lifelines of the trucking industry and consequently the whole economic pulse of the nation. Commercial trucks contribute over 42 percent of the revenues in the Federal Highway Trust Fund, or $14 million per day. As a significant contributor,

the trucking industry is concerned that FHWA does not propose to spend enough in FY 1990 to build and repair the nation's highways. FHWA's January budget would decrease spending in FY 1990 by $1 billion (compared to FY 1989) at a time when annual revenues are estimated to decrease only $200 million. This will add to the balance in the Trust Fund and break the promise that all of the revenues collected and earned will be spent for authorized purposes. ATA recommends that the Federal Highway program be funded at a level of $13.956 billion -- the level authorized by the Surface Transportation Assistance Act.

While ATA supports attempts to meet the Gramm-Rudman-Hollings targets, we are concerned that overall, DOT targets may be met at the expense of the Federal-Aid Highway program. We do not support any plan of increasing funding for the Coast Guard, Amtrak, mass transit, or aviation if it is done by decreasing highway funding. Compared to the FY 1989 budget, the proposed FHWA budget already reduces funds for fixing pot-holed Interstate Highways, repairing dangerous bridges, and upgrading primary highways. The FHWA program cannot be decreased in order to expand other programs, no matter how commendable the goals. It is clear that Americans are more directly and positively affected by the safety impacts of the highway funding programs than by any other transportation activity.

In general, ATA believes that FHWA needs to take a more proactive stance on future highway needs. Too often, discussion about future highway programs focuses on the process and mechanics for distributing money -- allocations, matching funds, etc. Questions about urban gridlock, congestion, improving the productivity of the highway system, better road design, traffic operations, incident management, and international and domestic trade are rarely asked.

We are encouraged by Secretary of Transportation Samuel Skinner's desire to develop a long-term strategic transportation plan. We believe that such a plan will recognize that highways are

the lifeblood of America's industry and commerce. We applaud the Subcommittee's interest in an aggressive pro-active highway program and look forward to working with the Secretary and the Subcommittee in developing the plan.

INTERNATIONAL TRANSPORTATION

Historically, DOT and FHWA have viewed trucking as a domestic transportation mode, influenced little by international trade, competition, and transportation trends. However, the rapid growth of international container freight in recent years has resulted in increasing numbers of maritime shipping containers being transported over America's highways. As a result, the trucking industry finds itself an integral part of international commerce and transportation.

According to a recent study by FHWA of data compiled by the Journal of Commerce of import/export containers moving through the ports (called PIERS), one-third of the containers are carrying cargoes at weights that could cause the vehicle transporting it to violate Federal vehicle weight laws. The containers are loaded on trucks without giving the trucker any indication that the shipment is overweight -- gross or axle. These overweight containers have the potential to increase damage to highway pavements and bridges and to impair vehicle performance, resulting in safety problems.

Overweight international containers -- both import and export -- have traditionally been viewed as a truck weight enforcement problem, primarily because they became illegal only when they were transported over the highway. Tickets for overweight containers are issued to the trucker even though the trucker has no control over the weight or loading of the container and may not be aware of the container weight. In some case, the trucker is forced to take an overweight container because of competitive pressures and the excess capacity which exists in this segment of the market. Interestingly, railroads do not want overloaded containers because of the safety implications and the capacity restraints of their equipment.

FHWA has taken the lead on the overweight container issue. To its credit, it recognizes that the trucker is not responsible for the overweights and that culpability must be directed at the party responsible for the overweights -- the shipper. Unfortunately, FHWA lacks the authority to solve the problem. FHWA cannot:

- o Issue regulations which make the shipper responsible for overweight containers;
- o Require shippers -- both domestic and international -- to indicate actual weights of individual containers;
- o Require ports to install scales to determine or confirm weights before containers leave their facilities;
- o Require owners of chassis to provide inspected, well-maintained, and appropriate running gear which can handle the higher legal weights; and
- o Eliminate steamship rates which are currently based on volume and not actual cargo weight.

This issue is not going to go away. As Europe moves to higher gross and axle weights and a uniformity in trading rules in 1992, the problem will become worse. Therefore, we urge this Subcommittee to direct DOT and FHWA to develop administrative and legislative recommendations which will solve this problem in consultation with the Department of Commerce, Federal Maritime Administration, Federal Maritime Commission, and Customs Service.

STATE TAX UNIFORMITY

Section 19 of the Motor Carrier Act of 1980 required the Department of Transportation to complete a study on the problems motor carriers had with the lack of uniformity among the states. In 1982, DOT issued its study, "Uniform State Regulation", which quantified that nonuniformity in state taxation of the motor carrier industry was costing the trucking industry $1 billion a year. In 1985, DOT funded a study by the National Governors' Association (NGA) to find ways to eliminate or reduce this drain on the trucking

industry and the economy. In 1987, NGA recommended that the states adopt an eight point program.

Unfortunately, the recommendations are being implemented too slowly. In 1985, it took 107 pieces of paper to operate a truck legally in all 48 contiguous states. Today, it requires 105. To accelerate the implementation of the NGA recommendation, FHWA issued a contract to the Trucking Research Institute to develop a training course for states to use in the implementation of the International Fuel Tax Agreement (IFTA), one of the eight points of the NGA Consensus Agenda. This will provide a means by which the momentum of the NGA uniformity effort can be brought to fruition. Universal adoption of IFTA by the states will go a long way toward reducing the $1 billion paperwork burden. We think this is a good investment of Federal dollars. In the meantime, FHWA must specifically endorse the International Fuel Tax Agreement and push for its adoption.

SAFETY

FHWA's budget goes beyond building roads and repairing bridges. It is also responsible for maintaining highway safety for all highway users. Not enough money is spent on highway safety. Ironically, on a per capita basis, more is spent on airway safety than is spent on highway safety. Yet, the number of people dying on our nation's highways is equivalent to a commercial jet crashing every day -- 365 days a year. Safety priorities need to be readjusted to reflect the need -- not just the headlines.

Real improvements in highway safety and truck safety can only come with solid applied research -- both short-term and long-term. Truck transportation is in dire need of more research money. FHWA's Office of Motor Carriers (OMC) has done a good job outlining the research areas needed to improve truck safety. But more needs to be done. ATA believes more funds are needed for research in the areas of:

- o Driver alertness and "fatigue";
- o Driver information/sensory overload;
- o Driver/vehicle integration;
- o Drug and alcohol awareness, prevention, and testing programs;
- o Driver training;
- o Advanced driver information systems;
- o Truck/road interaction;
- o Truck simulators;
- o Congestion and truck traffic;
- o Accident experience; and
- o Speeding by various types of vehicles

One area in which a modest increase in highway safety funding would have a major impact is complete and timely implementation of the licensing standards for commercial drivers. For example, $5 million more should be spent on biometric identifier equipment and training to facilitate speedy implementation adoption of (which Congress mandated in the Truck and Bus Safety and Regulatory Reform Act of 1988) and on a fully-functional Commercial Drivers License Information System for all states.

While states are hard-pressed to come up with the facilities, equipment, and trained staff necessary to fully implement the Commercial Drivers License by the mandated dates, ATA opposes any attempt to increase the statutory time frames allowed for the states to fully implement the Commercial Drivers License (CDL).

However, more needs to be done to educate groups about the Commercial Drivers License. For example, FHWA recently issued a contract to the Trucking Research Institute to develop and present educational programs and materials to meet the needs of key entities and groups whose participation is essential to the nationwide compliance with the statutory deadlines of the Commercial Motor Vehicle Safety Act of 1986.

ATA supports the Subcommittee's intention to raise the funding for the FHWA Motor Carrier Safety Assistance Program (MCSAP) to $60 million, without any takedown. This increased funding is necessary because the program covers not only the inspection of vehicles, but also the cargo (especially hazardous materials) and the driver. In addition, MCSAP money is being used to implement the CDL.

Moreover, with the elimination of the Exempt Commercial Zone, which ATA supported, more inspections of vehicles, drivers, and loads will be conducted in the metropolitan areas with MCSAP funds. ATA supports these increased inspections and believes the next real improvements in highway safety must be in the urban area. Truck accidents and congestion are like oil and water: They do not mix. ATA and its state associations are working with the National Asphalt Pavement Association (NAPA) and others to improve urban truck safety. ATA and NAPA will be announcing a major joint program of new urban safety initiative in 3-4 months.

We are concerned, however, that FHWA is not insisting that all states recognize the inspections of other states receiving MCSAP funding. Currently, motor vehicles can be stopped day after day and reinspected as they pass through different states. FHWA should encourage and require, if necessary, states to honor the system developed by the Commercial Vehicle Safety Alliance (CVSA) to limit the number of duplicative and unnecessary inspections. Currently, a recently-inspected truck can be inspected again and again without any real improvement in highway safety. Reinspections are also inefficient, since equipment with no inspection is let by. We certainly do not oppose reinspection where there is good cause. However, we object to the inability of the states to establish reciprocity with each other's inspections. We encourage the Subcommittee to direct the FHWA to become a more directly involved and committed to the administration and uniformity of CVSA.

We are also concerned that FHWA is not providing more direct leadership in the development of a reasonable penalty schedule of fines being assessed by MCSAP-funded inspectors. Depending upon the

jurisdiction, fines for the same offense can vary from $100 to $1,000. Currently, CVSA is attempting to rationalize the fines, but FHWA needs to be a full and visible participant in the discussions. Without some guidance from FHWA, the fines can readily become a revenue-generating device rather than a penalty for unsafe equipment. We exhort the Subcommittee to require FHWA to determine the seriousness of the problem and recommend reasonable fines which bear some relationship to the offense.

We believes the role of the states should be roadside vehicle inspections while the role of FHWA should be audits of the trucking company's facilities. FHWA's inspectors should conduct so-called terminal audits which will determine which companies are safe or unsafe. Unfortunately, the job of inspecting over 200,000 companies is tremendous and the number of inspectors is limited. ATA urges the Subcommittee to support funding for additional Federal inspectors to conduct terminal audits as FHWA has requested.

However, even if there were enough inspectors, once a "bad actor" is identified, little happens. In the case of companies whose operations pose an imminent hazard to the traveling public, FHWA should immediately shut the company down. For carriers with less serious violations, FHWA should reinspect companies with unsatisfactory safety ratings within a reasonable period of time to determine if corrective action has been taken. The primary role of FHWA should be that of educating carriers to comply with Federal safety regulations, not imposing fines. But once habitual offenders are identified, punitive action should take place within established administrative procedures.

PRODUCTIVITY

On May 1, 1989, FHWA is scheduled to close the docket on comments to a proposed rulemaking on access for vehicles allowed under the Surface Transportation Assistance Act of 1982 (STAA). These vehicles are tractors with twin 28-foot trailers, tractors

with 48'/102" trailers, and other specialized and grandfathered vehicles. These vehicles are supposed to be legal on all Interstate System highways, plus a designated highway system, and allowed adequate access to destinations that can be reached safely. Unfortunately, six years after the passage of STAA, we are still waiting in several key states for an adequate designated system and reasonable access. ATA hopes the rulemaking which will come from this docket will give the industry the productivity benefits promised by STAA in exchange for the 125 percent increase in taxes also enacted in the STAA. We hope the proposed rules will establish the type of national guidelines envisioned by Congress and reflect the role FHWA should have taken immediately after the law was passed.

On July 1, 1989, two months after FHWA closes its docket, the Transportation Research Board (TRB) will be issuing a study which will make recommendations on access. We believe FHWA should also receive public comments on the TRB report, but should not delay closing the docket to do so. Extending the docket for 60-90 days after the study is issued would delay the issuance of final rules until December or January.

Instead, we believe FHWA should close its docket on May 1 as planned. This would allow FHWA two months to study the comments that have been received. Once the TRB study is issued, FHWA should receive additional public comments on the study, either by reopening the docket for a short period of time or by conducting a special hearing. This would provide an opportunity for the public to comment while at the same time allowing FHWA to issue a final rule in September 1989.

MOTOR CARRIER ADMINISTRATION

ATA supports the creation of a Motor Carrier Administration within DOT. As noted at the beginning of this statement, trucking is the largest freight transportation mode -- hauling more tons,

employing more people, paying more taxes, and traveling more miles than any other mode. Unfortunately, it is not fully represented at the Department of Transportation. Every other mode has a modal administrator; trucking does not. Equity demands that a trucking administration be established.

Furthermore, there is a tremendous need for such an Administration to deal with the numerous issues which arise from motor carrier operations and which must be dealt with by the Federal government and by Congress. While FHWA has tried to address the issues of trucking, its primary responsibility is building highways. Not all problems in the trucking industry which need to be addressed by the Federal government are highway-related, including:

- o General state business taxes;
- o Multistate income taxation of interstate drivers;
- o Human resources, including workers' compensation;
- o Insurance/Tort Reform;
- o Intermodal coordination;
- o International trade, competition, and transportation; and
- o Quality and availability of labor.

The increased annual cost resulting from a Motor Carrier Administration is only $2.4 million per year, according to a General Accounting Office report -- less than DOT spends in one hour for all its other programs. ATA respectfully suggests this Subcommittee earmark $2.4 million per year for a Motor Carrier Administration, provided that authorizing legislation is enacted.

INTERSTATE COMMERCE COMMISSION

Since the Motor Carrier Act of 1980, there has been much discussion and controversy as to whether the trucking industry should be fully deregulated. Attempts have been made to deregulate the industry both administratively and legislatively. Both have failed. Other attempts have been made to sunset motor carrier

regulation by decreasing the budget of the Interstate Commerce Commission (ICC). ATA supports the continued economic regulation of the trucking industry. However, if the motor carrier industry is to be deregulated, it should be done through proper legislative channels and not through the budget process. In the meantime, the ICC still has a Congressional mandate to regulate the industry. We urge the Subcommittee to fully fund the ICC so that it can carry out the duties mandated by the Congress.

The American Trucking Associations is very appreciative of the efforts by this Subcommittee to assure that the ICC fulfills its Congressional mandate to collect and disseminate motor carrier data to monitor the impact of regulatory and economic changes on the industry. This includes data reporting requirements for all Class I and Class II motor carriers, quarterly reports that provide meaningful interim data, and the use of a Uniform System of Accounts. Because of the Subcommittee's interest, the ICC issued its final report on October 12, 1988, to:

- Continue quarterly and annual reports for all Class I and II carriers;
- Adopt a streamlined quarterly report while at the same time collecting the necessary information;
- Adopt, with minor changes, the ten-page annual report recommended by the industry; and
- Maintain the Uniform System of Accounts.

These actions are a major victory for:

- Shippers -- who can continue to analyze cost/revenue data to evaluate general rate adjustment;
- Insurance companies -- who can continue to cross-check data supplied them by individual carriers;
- Bankers -- who can continue to monitor the health of their investments compared with the rest of the industry; and

- Government -- which can assure that the ICC continues to fulfill its Congressional directive.

However, while the ICC retained data reporting requirements, some carriers continue to avoid any reporting. At present, 711 of the 2,833 Class I and II carriers have been granted an exemption from filing reports. In addition, the Commission fails to institute regular follow-up with Class III carriers which have grown to Class II or I status and, as such, should be filing reports. Finally, the Commission fails to require timely, complete, and accurate reports, which results in an incomplete or inaccurate financial and operating profile of the industry. ATA urges this Subcommittee to direct the ICC to present a complete profile of the industry, including data for all Class I and II carriers.

CONCLUSION

ATA urges Congress to provide the DOT and ICC with appropriations adequate to enable them to fulfill their mandated responsibilities in an efficient, reasonable, and expeditious manner.

For DOT and FHWA budgets, our primary concern is that the Federal-Aid Highway program be fully funded and that the revenues generated by the Highway Trust Fund are not used to offset expanded programs in other transportation areas. We are also concerned that no real consensus has emerged as what to how proceed with the post-1992 Highway program.

We are also concerned that as the United States joins the worldwide global economy, our ability to effectively control overweight and unsafe container traffic is limited unless there are substantial changes in the mandate of the FHWA.

We believe the Federal government should do more to reduce the burdens on interstate commerce created by state nonuniformity in taxes, vehicle inspections, and fines.

We consider truck research and adequate data to be the keys to improved truck safety and productivity. Therefore, we urge to Subcommittee to expand the funding for truck-related research and require data reporting by all regulated carriers.

Finally, Congress needs to create a Motor Carrier Administration which would enable Congress and the Executive branch to make well-founded and properly directed legislative and regulatory decisions affecting truck and bus transportation.

URBAN MASS TRANSPORTATION ADMINISTRATION FUNDING

STATEMENT OF THE AMERICAN TRANSIT ASSOCIATION

APTA APPRECIATES THIS OPPORTUNITY TO EXPRESS ITS VIEWS ON THE ADMINISTRATION'S FISCAL YEAR 1990 BUDGET REQUEST FOR THE URBAN MASS TRANSPORTATION ADMINISTRATION AND FEDERAL MASS TRANSIT PROGRAMS.

ON BEHALF OF THE TRANSIT COMMUNITY, APTA COMMENDS THIS COMMITTEE FOR MAINTAINING TRANSIT FUNDING IN FISCAL YEAR 1989 AT THE HIGHEST LEVEL POSSIBLE UNDER THE CIRCUMSTANCES. WE HOPE TO IMPRESS UPON EACH OF YOU THE IMPORTANCE OF CONTINUING TO FUND THE FEDERAL TRANSIT PROGRAM AT A WORKABLE LEVEL IN FISCAL YEAR 1990.

THE BUSH ADMINISTRATION BUDGET

MR. CHAIRMAN, PRESIDENT BUSH HAS SUBMITTED ESSENTIALLY THE SAME PROPOSAL AS THE REAGAN ADMINISTRATION. THIS IS THE SAME BUDGET WHICH CONGRESS HAS REJECTED IN EACH OF THE LAST FOUR YEARS. WHILE THE BUSH BUDGET IS DEVOID OF MANY DETAILS, MR. DARMAN, THE ADMINISTRATION'S BUDGET DIRECTOR, HAS STATED THAT THE REAGAN BUDGET PROPOSALS SHOULD BE "TREATED AS IF THEY WERE THE BUSH ADMINISTRATION PROPOSALS FOR PURPOSES OF STARTING THE BUDGET PROCESS WITH CONGRESS".

PRESIDENT BUSH, LIKE FORMER PRESIDENT REAGAN, HAS ASKED THAT CONGRESS REDUCE THE FEDERAL MASS TRANSIT PROGRAM BY MORE THAN 50% AND THAT IT COMPLETELY REVISE THE WAY FEDERAL TRANSIT ASSISTANCE IS ALLOCATED.

THE PRESIDENT HAS REQUESTED THAT OPERATING ASSISTANCE TO CITIES OF MORE THAN 200,000 PEOPLE BE ELIMINATED AND THAT THE REQUIRED LOCAL MATCH FOR CAPITAL EXPENDITURES UNDER THE SECTION 9 PROGRAM BE INCREASED FROM 20% TO 50%.

THIS YEAR'S REQUEST COMES ON THE HEELS OF A 49% REDUCTION, IN REAL TERMS, OF FEDERAL FUNDING FOR MASS TRANSIT SINCE FISCAL YEAR 1981. THE BUDGET REFLECTS A DRAMATIC RETREAT FROM AUTHORIZED TRANSIT POLICY AND A REVERSAL OF THE FEDERAL COMMITMENT TO SUPPORT PUBLIC TRANSPORTATION.

THE FY 1990 REQUEST, LIKE FORMER PRESIDENT REAGAN'S RECENT BUDGET REQUESTS, CALLS FOR SUBSTANTIAL GENERAL FUND INCREASES IN FUNDING FOR AVIATION AND COAST GUARD PROGRAMS. DURING THE LAST EIGHT YEARS, UMTA'S SHARE OF THE DOT BUDGET HAS DECREASED BY 42%, WHILE THE FAA'S SHARE OF THAT SAME BUDGET INCREASED BY 59% AND THE COAST GUARD SHARE INCREASED BY MORE THAN 19%.

APTA RECOGNIZES THE NEED TO IMPROVE AIR SAFETY AND TO IMPROVE THE COAST GUARD'S ABILITY TO INTERDICT ILLICIT DRUG TRAFFIC, BUT WE MUST MAKE CLEAR THAT THESE PRIORITIES SHOULD NOT BE FINANCED BY HIGHER TRANSIT FARES AND LESS SERVICE TO THE 8 BILLION TRANSIT RIDERS WHO USE OUR SYSTEMS EACH YEAR.

TRANSIT OPERATORS ACROSS THIS COUNTRY PROVIDE A BADLY NEEDED BASIC SERVICE AND INCREASED DEMAND FOR TRANSIT SERVICE IS EVIDENT ACROSS THE NATION. IT SHOULD BE UNTHINKABLE TO EVEN CONSIDER FURTHER REDUCTIONS IN MASS TRANSIT FUNDING. INSTEAD WE MUST BE WORKING TO INCREASE TRANSIT RIDERSHIP AS PART OF THE EFFORT TO REDUCE AIR POLLUTION AND TRAFFIC CONGESTION. WE SHOULD BE CREATING INCENTIVES TO USE MASS TRANSIT IN ORDER TO CONSERVE OUR ENERGY RESOURCES AND REDUCE OUR DEPENDENCE ON FOREIGN OIL, THUS DECREASING OUR TRADE IMBALANCE AND REDUCING OUR INTERNATIONAL DEBT. EFFECTIVE TRANSIT SYSTEMS ARE AN INTEGRAL COMPONENT OF A HEALTHY ECONOMY AND OFTEN THE ONLY MEANS OF TRANSPORTATION FOR DISABLED PERSONS, THE POOR, AND THE DISADVANTAGED.

IT IS NOT ONLY THE TRANSIT INDUSTRY WHICH HAS RECOGNIZED THE INCREASED ROLE THAT TRANSIT CAN PLAY IN RESOLVING THE NATION'S PROBLEMS. A COALITION OF 18 ENVIRONMENTAL GROUPS, IN A REPORT ENTITLED "BLUEPRINT FOR THE ENVIRONMENT," RECOMMENDS THAT ANNUAL FEDERAL TRANSIT FUNDING SHOULD BE INCREASED TO AT LEAST $5.1 BILLION. ANOTHER ENVIRONMENTAL STUDY; "PROJECT 88-HARNESSING MARKET FORCES TO PROTECT OUR ENVIRONMENT: INITIATIVES FOR THE NEW PRESIDENT," SUGGESTS THAT EXISTING POLICIES SHOULD BE CHANGED TO ENCOURAGE "INCREASED RELIANCE ON MASS TRANSIT INSTEAD OF AUTOMOBILE COMMUTING."

ANY SIGNIFICANT REDUCTIONS IN FEDERAL TRANSIT FUNDING WILL JEOPARDIZE OUR LONG STANDING INTER-GOVERNMENTAL PARTNERSHIP. ANNUAL STATE AND LOCAL GOVERNMENT SUPPORT OF MASS TRANSIT OPERATING EXPENSES INCREASED BY 173%, OR $4.5 BILLION BETWEEN 1980 AND 1987, AND ANNUAL PASSENGER REVENUES NEARLY DOUBLED, FROM $2.7 BILLION TO $5.2 BILLION OVER THE SAME PERIOD. MEANWHILE, ANNUAL FEDERAL ASSISTANCE FOR SUCH COSTS DECLINED BY 18% OVER THE SAME PERIOD. THE PARTNERSHIP BETWEEN ALL LEVELS OF GOVERNMENT WILL NOT WORK UNLESS THE FEDERAL GOVERNMENT STANDS BY ITS COMMITMENT TO PUBLIC TRANSPORTATION.

ADOPTION OF THE ADMINISTRATION'S BUDGET WOULD CONTINUE THE VICIOUS CYCLE WHICH BEGAN UNDER EARLIER REAGAN ADMINISTRATION BUDGETS OF REDUCED SERVICE, INCREASED FARES, ABANDONMENT OF ROUTES, AND LOSS OF RIDERS. SUCH DRACONIAN CUTS AS PROPOSED BY THE ADMINISTRATION WOULD PRECLUDE EFFECTIVE PLANNING BY TRANSIT OPERATORS, PLANNING WHICH SECRETARY SKINNER SOUGHT TO ENCOURAGE IN HIS TESTIMONY, AND HURT WORKERS AND EMPLOYERS INVOLVED IN TRANSIT-RELATED MANUFACTURING, SUPPLY, AND CONSTRUCTION. AS IT IS, FY 1989 APPROPRIATIONS FOR THE FORMULA PROGRAM WERE $550 MILLION, OR 24%, LESS THAN THE AUTHORIZED LEVEL, WHILE FUNDING FOR THE DISCRETIONARY ACCOUNT WAS $55 MILLION SHORT OF THE AUTHORIZATION.

IN LIGHT OF THE RECENT BUDGET SUMMIT AGREEMENT BETWEEN CONGRESS AND THE ADMINISTRATION, AND MINDFUL OF THE FACT THAT FUNDING SHOULD BE AT AUTHORIZED LEVELS, WE WOULD ARGUE FOR NOTHING LESS THAN $3.15 BILLION, THE FY 1989 LEVEL, FOR THE TRANSIT PROGRAM IN FY 1990.

TRANSIT'S NEEDS

TRANSIT AGENCIES HAVE SOUGHT TO FULFILL THEIR MANDATE OF PROVIDING MOBILITY, BUT CANNOT DO SO UNLESS SUFFICIENT FUNDS ARE APPROPRIATED.

THE NATIONAL COUNCIL ON PUBLIC WORKS IMPROVEMENT FOUND THAT THERE IS A NEED TO INCREASE CURRENT SPENDING ON OUR TRANSPORTATION AND OTHER INFRASTRUCTURE BY AS MUCH AS 100 PERCENT. APTA'S ASSESSMENT OF TRANSIT'S CAPITAL NEEDS INDICATES THAT SOME $6.3 BILLION IN ANNUAL CAPITAL INVESTMENTS, TO PRESERVE CAPITAL INFRASTRUCTURE AND ROLLING STOCK, AND $1.7 BILLION IN NEW STARTS, IS REQUIRED TO ACCOMMODATE THE GROWTH OF THE ECONOMY.

IN ADDITION, TRANSIT IS BEING ASKED TO HELP THE CITIES REDUCE AIR POLLUTION, TO OPERATE CLEANER ALTERNATIVELY FUELED VEHICLES, AND TO REDUCE THE GRIDLOCK WHICH IS PARALYZING OUR COMMUNITIES AND REDUCING THE NATION'S PRODUCTIVITY. TRANSIT WANTS TO BE ABLE TO MEET THE GROWING NEEDS OF DISABLED CITIZENS WHO WISH TO PARTICIPATE MORE FULLY IN SOCIETY. IT IS EXPECTED TO COMPLY WITH STRINGENT HAZARDOUS MATERIALS STANDARDS, IMPROVE AN ALREADY EXCELLENT SAFETY RECORD, ENSURE THAT ITS OPERATORS ARE DRUG- AND ALCOHOL-FREE, AND PROVIDE REHABILITATION TO THOSE WITH SUCH PROBLEMS.

THE TRANSIT COMMUNITY WANTS TO MAKE THIS COUNTRY A BETTER PLACE TO LIVE, BUT IT NEEDS THE TOOLS TO DO THE JOB.

THE CURRENT FEDERAL TRANSIT PROGRAM WAS DESIGNED TO OPERATE AT AN ANNUAL FUNDING LEVEL OF ABOUT $4 BILLION. IT DOES NOT WORK WELL AT THE FY 1989 LEVEL OF $3.15 BILLION, AND SEVERE PROBLEMS WILL RESULT IF IT IS CUT TO A LOWER LEVEL. LET ME BRIEFLY TOUCH ON THE PROBLEMS WE FACE AND THE SOLUTIONS WE OFFER FOR YOUR CONSIDERATION.

USING AUTHORIZED PROGRAM LEVELS AS A GUIDE: PROTECTING SECTION 9

DURING THE 1987 REAUTHORIZATION OF THE SURFACE TRANSPORTATION ACT, CONGRESS, WITH MUCH INPUT FROM TRANSIT, ESTABLISHED FUNDING LEVELS FOR INDIVIDUAL PROGRAM CATEGORIES. ALTHOUGH THE BUDGET DEFICIT AND PREVIOUS BUDGET AGREEMENTS HAVE REQUIRED AN EMPHASIS ON CUTS, SOME TRANSPORTATION PROGRAMS HAVE TAKEN DISPROPORTIONATE REDUCTIONS. WE WOULD, HOWEVER, URGE THAT WHEN THE COMMITTEE APPROPRIATES AVAILABLE FUNDS WITHIN THE CONSTRAINTS OF THE BUDGET AGREEMENT, IT FOLLOW AS MUCH AS POSSIBLE THE AUTHORIZED PROPORTIONS FOR EACH PROGRAM. IF FUNDING RATIOS ESTABLISHED IN THE AUTHORIZING LEGISLATION ARE FOLLOWED, THE PROPORTIONATE SHARE OF TRANSIT FUNDING ALLOCATED FOR THE SECTION 9 FORMULA PROGRAM, WHICH GOES TO ALL URBANIZED AREAS, WOULD BE INCREASED IN FY 1990.

FUNDING THE SECTION 9 FORMULA PROGRAM AT AN ADEQUATE LEVEL IS OF CRITICAL CONCERN. THE FORMULA PROGRAM PROVIDES A BASIC LEVEL OF FUNDING FOR ALL TRANSIT SYSTEMS; LARGE, MEDIUM, AND SMALL. IT PROVIDES SYSTEMS WITH ASSISTANCE TO HELP PAY THE COSTS OF MAINTENANCE AND OPERATIONS, AND IT HELPS THEM TO MEET THEIR CAPITAL NEEDS. IT HAS BEEN CUT DRAMATICALLY SINCE 1985.

UNDER THE FY 1989 FUNDING LEVEL OF $1.53 BILLION THERE WAS NOT ENOUGH MONEY TO FULLY FUND OPERATING CAPS IN MANY AREAS OR TO MEET MOST SYSTEM'S NEED FOR CAPITAL IMPROVEMENTS.

OPERATING CAPS

THE OPERATING CAP PROBLEM IS OF PARTICULAR CONCERN. WHILE A TRANSIT SYSTEM CAN SOMETIMES DEFER OR CUT BACK ON THE PLANNED PURCHASE OF NEW BUSES OR OTHER CAPITAL INVESTMENTS, IT CANNOT AVOID PAYING ITS OPERATING COSTS -- IT'S CURRENT BILLS.

IN THE CURRENT FISCAL YEAR, AN ESTIMATED 124 SMALL CITIES AND URBAN AREAS WITH POPULATIONS OF LESS THAN 200,000, FULLY 50% OF THE TOTAL, WILL NOT RECEIVE THE ALLOWABLE AMOUNT OF FEDERAL OPERATING ASSISTANCE UNDER THE SECTION 9 PROGRAM. READING, PENNSYLVANIA IS EXPECTED TO FALL SHORT OF ITS OPERATING CAP BY 24%; JOLIET, ILLINOIS WILL COME UP 29% SHORT; AND SAGINAW, MICHIGAN STANDS TO FALL SHORT OF ITS OPERATING CAP BY ABOUT 8%.

THESE AREAS WILL NOT RECEIVE THE FULL AMOUNT OF FEDERAL OPERATING AID WHICH THEY HAD EXPECTED UNDER LAW BECAUSE GENERAL REVENUES APPROPRIATED FOR THE PROGRAM DO NOT FULLY FUND UP TO THE OPERATING CAPS. THIS HAS OCCURRED BECAUSE, INCREASINGLY, FORMULA GRANTS ARE BEING FUNDED WITH SECTION 9(B) DOLLARS WHICH ARE AVAILABLE FOR CAPITAL PURPOSES ONLY. ANOTHER CONTRIBUTING FACTOR HAS BEEN THE ANNUAL COST-OF-LIVING (COLA) ADJUSTMENT FOR OPERATING CAPS IN URBANIZED AREAS OF LESS THAN 200,000. WHILE THESE COLAS WERE NOT INTENDED TO REDUCE THE AMOUNT OF OPERATING ASSISTANCE TO OTHER URBANIZED AREAS, THAT, IN FACT HAS BEEN THE RESULT. UNTIL THE PROBLEM OF OPERATING CAPS CAN BE ADDRESSED IN THE NEXT AUTHORIZATION BILL, A SHORT-TERM SOLUTION WOULD BE TO MAKE A ONE-TIME APPROPRIATION OF $8.8 MILLION, APART FROM SECTION 9 FORMULA DISTRIBUTIONS, FOR URBANIZED AREAS WHOSE FY 1989 GENERAL FUND APPORTIONMENTS WERE SHORT OF THEIR OPERATING ASSISTANCE CAPS. WE WOULD ASK THAT THE COMMITTEE MAKE EVERY EFFORT TO LEAVE THE CAPS AT FY 1989 LEVELS UNTIL THIS PROBLEM CAN BE DEALT WITH EFFECTIVELY DURING THE NEXT REAUTHORIZATION.

INTERSTATE TRANSFER

THE INTERSTATE TRANSFER PROGRAM IS VERY IMPORTANT TO A SMALL NUMBER OF CITIES. IT WAS FUNDED AT A LEVEL OF $200 MILLION IN FY 1989. WE ASK THAT THE INTERSTATE TRANSFER PROGRAM BE FUNDED IN A MANNER WHICH GIVES THOSE SYSTEMS WHAT THEY NEED BUT WHICH DOES NOT RESULT IN A REDUCTION OF SECTION 9 FORMULA AID. WE RECOGNIZE THE FISCAL CONSTRAINTS UNDER WHICH THE FEDERAL GOVERNMENT NOW OPERATES, BUT THE INTERSTATE TRANSFER PROGRAM WAS INTENDED TO SUBSTITUTE TRANSIT PROJECTS FOR INTERSTATE HIGHWAY CONSTRUCTION IN URBAN AREAS WHERE STATE AND LOCAL OFFICIALS DETERMINED THAT MASS TRANSIT MADE MORE SENSE. THE REPLACEMENT OF ADDITIONAL INTERSTATE LANE MILES, WHICH WOULD OTHERWISE INCREASE TRAFFIC CONGESTION ON FEEDER STREETS AND EXACERBATE AIR POLLUTION PROBLEMS, MAKES EVEN MORE SENSE TODAY THAN IT DID WHEN THE PROGRAM WAS AUTHORIZED.

SECTION 3 BUS REPLACEMENT

ANOTHER ISSUE WE WISH TO ADDRESS DEALS WITH LIMITATIONS ON THE USE OF SECTION 3 DISCRETIONARY FUNDS. UNDER THE EXISTING PROGRAM, 40% OF DISCRETIONARY FUNDS ARE EARMARKED FOR NEW STARTS AND ANOTHER 40% OF THE TOTAL IS SET ASIDE FOR RAIL MODERNIZATION. ANOTHER 10% IS FOR DISCRETIONARY USE AND THE REMAINING 10% IS ALLOCATED FOR BUS-RELATED PURCHASES.

IN THE CURRENT BUDGET CLIMATE, FEW SYSTEMS CAN AFFORD TO INCREASE THE NUMBER OF BUSES THEY OPERATE, YET EXISTING UMTA POLICY SEVERELY RESTRICTS THE USE OF SECTION 3 FUNDS FOR BUS REPLACEMENT. REDUCTIONS IN THE SECTION 9 FORMULA PROGRAM HAVE MADE IT IMPOSSIBLE FOR MOST SYSTEMS TO USE SECTION 9 FUNDS TO BUY SUFFICIENT REPLACEMENT BUSES.

IT IS THEREFORE IMPERATIVE THAT TRANSIT SYSTEMS BE PERMITTED TO USE SECTION 3 FUNDS FOR BUS REPLACEMENT. IN FACT, THIS WOULD BE CONSISTENT WITH BOTH THE SPIRIT AND THE INTENT OF AUTHORIZING LANGUAGE. THE AUTHORIZING COMMITTEE PLACED NO RESTRICTION ON THE USE OF THESE FUNDS FOR BUS REPLACEMENT. IT WOULD PERMIT THEM TO BUY THE BUSES WHICH POLLUTE LESS AND WHICH ARE ACCESSIBLE TO DISABLED PERSONS AND SPEED THE EFFORT TO MAKE THE NATION'S BUS FLEET WHEELCHAIR ACCESSIBLE.

RESEARCH AND DEVELOPMENT

FINALLY, MR. CHAIRMAN, WE MUST ASK THAT TRANSIT'S NEED TO CONDUCT AN AGGRESSIVE RESEARCH AND DEVELOPMENT PROGRAM BE ADDRESSED. WE HAVE SEEN THE EFFECTS OF TOO LITTLE RESEARCH IN OTHER FIELDS. INNOVATION IS STIFLED AND NEW CHALLENGES CANNOT BE MET. DOMESTIC SUPPLIERS WITHER AND JOBS ARE LOST OFFSHORE. TRANSIT NEEDS TO BE INNOVATIVE IF IT IS TO IMPROVE ITS EFFICIENCY, RUN CLEANER BUSES, AND MEET THE GROWING DEMAND FOR ITS SERVICES INTO THE NEXT CENTURY. RESEARCH CAN PROVIDE THE GUIDING LIGHT.

FUNDING FOR THE TRANSIT RESEARCH PROGRAM HAS DECLINED FROM AN ANNUAL LEVEL OF MORE THAN $50 MILLION IN FY 1985 TO $10 MILLION IN FY 1989. WE WOULD ASK THAT ADDITIONAL RESOURCES BE DEVOTED TO THIS IMPORTANT PURPOSE. WE RECOMMEND THAT, USING EXISTING SECTION 6 AUTHORITY, THE TRANSPORTATION SECRETARY BE DIRECTED TO CONTRACT WITH THE TRANSIT DEVELOPMENT CORPORATION FOR RESEARCH IN SPECIFIC PRIORITY AREAS AS ENVISIONED IN THE 1987 REPORT BY THE TRANSPORTATION RESEARCH BOARD (TRB), ENTITLED "RESEARCH FOR PUBLIC TRANSIT -- NEW DIRECTIONS" (SPECIAL REPORT #213). WE WOULD SUGGEST THAT THE TRB RECOMMENDED FUNDING LEVEL OF $10 MILLION BE APPROPRIATED TO BEGIN THIS PROGRAM.

CONCLUSION

IN CONCLUSION MR. CHAIRMAN AND MEMBERS OF THE COMMITTEE, I WANT TO THANK YOU ON BEHALF OF APTA FOR THE EFFORT THAT CONGRESS HAS MADE TO PRESERVE FEDERAL FUNDING FOR MASS TRANSIT. WE APPLAUD ITS WISDOM IN REJECTING THE PREVIOUS ADMINISTRATION'S URGINGS TO DISMANTLE THE EXISTING PROGRAM AND TO DECIMATE FEDERAL SUPPORT FOR SUCH A NATIONAL NEED. WE REQUEST THAT THE COMMITTEE MAINTAIN ITS COMMITMENT TO MASS TRANSIT AND TO THE PROVISION OF FEDERAL ASSISTANCE IN PARTICULAR AREAS AND LEVELS NOTED ABOVE.

WE BELIEVE THAT TRANSIT IS THE ANSWER TO AN INCREASING NUMBER OF DEMANDS AS OUR NATION MOVES INTO THE TWENTY-FIRST CENTURY. WELL MANAGED TRANSIT SYSTEMS AND A PRUDENT NATIONAL TRANSIT POLICY WILL HELP US TO MEET THE CHALLENGES OF URBAN LIFE, POPULATION GROWTH, A HEALTHY ECONOMY, AND A CLEAN ENVIRONMENT. IT WILL ENABLE US TO MEET THE NEEDS OF THE ELDERLY AND DISABLED PERSONS. BUT WE NEED YOUR CONTINUED SUPPORT FOR THE HIGHEST POSSIBLE LEVEL OF FUNDING FOR UMTA PROGRAMS IN FISCAL YEAR 1990.

CITY OF CHICAGO AND CHICAGO TRANSIT AUTHORITY

STATEMENT OF CLARK BURRUS, CHAIRMAN, CHICAGO TRANSIT AUTHORITY, AND DAVID S. WILLIAMS, JR., COMMISSIONER, CITY OF CHICAGO DEPARTMENT OF PUBLIC WORKS

On behalf of the City of Chicago and the Chicago Transit Authority (CTA), we wish to express our appreciation for the opportunity to submit testimony to the Senate Appropriations Subcommittee on Transportation.

Interstate Transfer Funding

The City of Chicago's involvement with the Interstate Transfer Program dates back to the trade in of the $2.3 billion Crosstown Expressway in 1979. The Chicago region has approximately 7.7% of the nation's unobligated balance for the substitute highway program and approximately 14% of the nation's unobligated balance for the substitute transit program. We wish to thank the subcommittee for the generous allocations of Interstate Transfer funding that it made in the past to the Chicago region.

We are again asking the subcommittee to appropriate for the highway and transit substitute programs at a sufficient level of funding to provide the Chicago region an earmark of $88 million for substitute transit projects and $130 million for substitute highway projects. Our comments will focus on the transit side of the program.

We are anxious to finish our participation in the Interstate Transfer program by the end of FY1991, when the current surface transportation program authorization expires. To accomplish this, it is essential that we receive as much funding in this year's appropriation as possible.

The Chicago region's FY1990 need for the Interstate Transfer Transit program is $88 million. If Congress fully appropriates the FY1990 Interstate Transfer Transit Program at its authorized level of $200 million, Chicago will receive approximately $14 million in formula funding. A discretionary earmark of $74 million would be required to meet our FY1990 need of $88 million.

Out of the request for $88 million, approximately $15.6 million is for the final increment needed for the construction of the Southwest Rapid Transit line. This is a nine-mile, eight-station extension of Chicago's rapid transit system from downtown Chicago to Midway airport on the southwest side of Chicago. The Project is subject to a full funding agreement with UMTA. Currently, the line is progressing on schedule and within budget, largely because Congress has provided adequate and timely appropriations for the Project.

Chicago's request also includes $46.4 million for the purchase of railcars for the Southwest Line. A funding delay for this acquisition will prevent us from acquiring the railcars in time for the rail line's opening. This railcar purchase is also included in a separate full funding agreement with UMTA.

The Southwest Rapid Transit Line will be a benefit to residents on Chicago's southwest side and neighboring suburbs. The corridor is one of the busiest in the nation and is the only area in Chicago not serviced by rapid transit. Along with improving travel times and accessibility, the line will promote development in this area. A recent article in the Chicago Sun-Times newspaper noted that the Southwest Corridor is undergoing a development renaissance in anticipation of its improved regional accessibility.

Another $9.0 million will be used to complete the rehabilitation of Chicago's downtown elevated structure, commonly referred to as the "Loop El." This is a key link in the rapid transit system which connects all of the lines that radiate from the Chicago business district. The segments of elevated structure in this project date back to the 1890's.

The Loop elevated has provided access for literally millions of riders to jobs, schools, shopping and social/cultural events over the years. The rehabilitation will ensure safe and efficient service for many years to come.

Finally, $17.0 million is needed for transit substitute projects in the suburbs of Chicago. This includes rehabilitating many severely deteriorated commuter rail bridges as well as improving commuter rail parking facilities.

UMTA Section 3 Privatization Discretionary Grants

In recent years, UMTA has encouraged transit project proposals which involve and encourage private sector participation and funding.

In continuing our commitment to increasing local private sector participation in Chicago's transportation infrastructure, we are undertaking a major initiative to develop a transit circulator system to provide greater mobility in and through Chicago's congested downtown central area which has a very high workplace density.

The number of jobs in Chicago's downtown is expected to increase by 30% over the next ten years. By the year 2000, the proportion of all jobs in the Chicago metropolitan area which are located Downtown is expected to increase from 16% to 19%, or one out of every five jobs in the Chicago metropolitan region.

The City will be requesting UMTA Section 3 Privatization Discretionary funds to begin preliminary engineering on the new downtown circulator system in FY1990. The Section 3 funds will be overmatched by a combination of State, local, and private sector funds. We have developed a federal-state-local partnership to assure that mass transit will continue to be a vital part of improving the Chicago region's economic well-being.

The City of Chicago has received UMTA Section 3 funds in the past. In FY1987, the City received a Section 3 grant for preliminary engineering on the West Loop Pedway. In FY1989, the City is requesting Section 3 funding for the construction of the West Loop Pedway.

We urge the subcommittee to continue funding UMTA's Section 3 Privatization Discretionary Program at increased overall levels so that the City of Chicago's and other cities' transit project proposals which encourage private sector participation will be sufficiently funded.

Federal Mass Transit Funding

CTA and the other operating agencies that make up the Regional Transportation Authority have determined that $6 billion dollars are needed over the next ten years to repair its $14.5 billion worth of infrastructure. Other transit agencies across Illinois are experiencing hardships of their own associated with funding shortfalls. Efforts are underway made to obtain state and local funding to fill the funding shortfalls. State and local governments have been overwhelmed by federal cutbacks in many programs. Further reduction in federal funding for mass transit will worsen the situation.

President Bush has proposed reductions in transit funds to compensate for substantial increases in FAA and Coast Guard. The reasoning for the increases is based on the "national" concerns for air transportation safety and drug interdiction. This action ignores the "local" and "national" concerns associated with mass transit. The problems associated with traffic congestion are growing in the urban areas. If Congress follows the misdirected lead of the President, the traffic congestion problem will rival, if not supersede, the current infrastructure crisis.

We join the rest of the transit industry in rejecting the President's budget which would cut the entire transit program drastically. We believe the subcommittee's previous rejection of such budget requests indicates that you agree with our position.

To conclude, we are specifically urging the subcommittee to:

a. fund the Interstate Transfer Transit Program at its authorized level,

b. fund Chicago's request of $88 million for Interstate Transfer Transit projects and $130 million for the Interstate Transfer Highway projects,

c. consider the City of Chicago's request for UMTA Section 3 Privatization Discretionary funds, and

d. provide an adequate amount of transit funding in the FY1990 budget.

GEORGETOWN UNIVERSITY

STATEMENT OF REV. WILLIAM L. GEORGE, S.J., ASSISTANT TO THE PRESIDENT OF GEORGETOWN UNIVERSITY FOR FEDERAL RELATIONS

Mr. Chairman and members of the committee, I am Rev. William L. George, S.J., Assistant to the President of Georgetown University. Thank you for the opportunity to testify on the subject of Hybrid Fuel Cell Buses.

Considerable progress has been made on the Hybrid Fuel Cell Bus program and it is on schedule. The studies carried on thus far by the two contractors have confirmed that the system is feasible. Through limited breadboard testing contractors have further reinforced the feasibility of this technology. Additional testing on a more complete system will take place in the next few months to further demonstrate and prove feasibility of the system to perform in a test bed bus. Completion of this Phase I objective will occur at the end of this fiscal year as scheduled. I would ask the committee to provide $1.5 million for FY'90. These funds will initiate Phase II which will produce and begin testing of the Test Bed Bus, a full sized fuel cell system integrated with a transit bus. Phase II efforts will include the procurement and modification of a transit bus for the installation of a fuel cell system. This means we will have a full sized fuel cell bus running in 1991 and can potentially have a small fleet under test by 1993.

I wish to express my concern over the fact that the $900,000 which the committee appropriated last year to complete the important Phase I feasibility demonstration effort, has not been released by the Department of Transportation. This funding is needed to keep the program on schedule by completing the feasibility demonstration. If the funds are not provided to DOE by June, the program will be delayed and the cost to bring this technology to bear on the problems of pollution and oil dependence will increase. It is important to note that the Department of Energy advanced vehicle group is being most professional and cooperative.

The Urban Mass Transit Administration (UMTA) has stated that they require another paper feasibility study before they can proceed. However, the Hybrid Fuel Cell Bus Program was jointly launched in 1987 by a DOE/DOT mutual agreement that the 1986 Feasibility Study conducted by the Los Alamos National Laboratory under UMTA sponsorship and guidance would become the basis for proceeding with the present program. A more far reaching feasibility of the technology will be demonstrated at the end of this year when Phase I is completed and actual fuel cell hardware is tested. Another paper study would provide no new insight beyond that produced by the initial Los Alamos study.

In April 1987, one goal of this project was "to provide the transition of this emerging technology to actual use." The project may be well ahead of schedule in accomplishing this goal. The California South Coast Air Quality Management District (SCAQMD) Board of Directors has approved support of this program by contributing some of their own funds to the Department of Energy (est. $2.4 million over four years). They have clearly expressed their intentions to obtain an additional fuel cell bus in Phase II for test and evaluation in the Los Angeles basin, a region plagued by air and noise pollution. This second bus will provide a broader basis for assessing fuel cell technology. The SCAQMD Board of Directors appears confident that the fuel cell bus is an economically feasible solution to their area's environmental dilemma.

Last year we had hoped to stimulate private industry to increase their support of research and development of advanced fuel cells for other applications and eventually for the automobile. I am

able to report that DOE is now outlining a program with General Motors and other members of the industry to develop Proton Exchange Membrane (PEM) fuel cell technology for transportation applications. More advanced fuel cell designs will make this technology feasible for automobiles. However, these improvements will only take place in a timely manner if we continue our current efforts to produce a functional vehicle. Through a process of retrofitting, the small urban bus will provide the perfect medium for testing more advanced fuel cells. The phosphoric acid fuel cell program is driving and stimulating the advanced fuel cell program.

Fuel cells offer an energy source that is unparalleled by any which exists today. It can provide clean an efficient power in an age which has seen an explosion in the demand for energy. The Hybrid Fuel Cell Bus program is an impetus for commercial venture that will last well in to the next century. Thank you and your committee for your past support of this timely endeavor.

On behalf Rev. Timothy S. Healy, S.J., President of Georgetown University, I thank you for this opportunity to testify.

METROPOLITAN TRANSIT AUTHORITY OF HARRIS COUNTY, TX

STATEMENT OF ROBERT C. LANIER, CHAIRMAN

On behalf of the Metropolitan Transit Authority of Harris County, Texas (METRO), I appreciate the opportunity to submit this statement for the Subcommittee record. I will review METRO's progress on Phase II of our integrated regional transportation system and I will discuss our plans for fiscal year 1990. More importantly, I want to thank the members of this Subcommittee for their support and efforts last year which resulted in a $50 million allocation for Houston in last year's bill. All of us at METRO are very grateful.

Since last year, METRO has made significant and exciting progress in our plans for the System Connector rail project. Basically, we are on schedule toward commencing construction in 1992 per the attached "Decision Tree" (see Figure 3).

- Technology

The METRO Board conducted a very well-attended symposium on the issues related to and the suppliers available for state-of-the-art technology. Through the symposium, the Board looked at an array of technologies and received valuable professional insights as to the possibilities and liabilities of each approach. One of the Board's considerations during this symposium was the possibility of building a grade-separated system and staying within the original proposed budget for the rail project. Several manufacturers who were present at the symposium believe that this is possible. As a result of all of this information, the Board has passed a resolution stating that although the precise technology has not been determined, the "U" Connector portion of the system (Downtown to Galleria/Post Oak) will be grade-separated but will be within the total of the original budget.

• Private Sector Involvement

The METRO Board also has, through a second symposium, actively explored various mechanisms for involving the private sector in the rail project. This symposium has resulted in development of a procurement program designed to encourage competitive bidding among alternative technology suppliers including the possibility of a modified turn-key or partial turn-key approach to design and construction of the system. During this symposium, the Board also looked into the possibility of involving the private sector in the construction and management of stations along the System Connector route as well as the likelihood of operating the system. Further, METRO may choose to contract with the private sector earlier than usual in this process; perhaps at completion of the preliminary design stage, thus allowing the private sector greater involvement at an earlier stage.

• Ridership

The METRO Board conducted a two day symposium on the methodologies for ridership projection. We invited noted experts from around the country to participate in this discussion and we had another well-attended intense session. In an open forum format, these experts were asked to review and comment on the processes, methodology and analysis that we had used in our ridership projections. We are proceeding to review our projections in light of the comments from these experts. We are seeking to avoid the experiences of some systems with regard to ridership and cost estimates.

• Environmental Work

Over the past eighteen months, METRO has proceeded with its work on an Environmental Impact Statement (EIS). We have completed all of our alternatives analysis and the initial work necessary to prepare the Draft Environmental Impact Statement (DEIS). We will submit a DEIS to UMTA by the end of this month. The alternatives analysis process we

employed was in much greater detail than that used by most other systems. To try to avoid some of the problems other systems have experienced, we have done extensive research and comparisons to national figures and the actual experiences in building rail in other cities, thus producing a basis for reality checks on our own projections.

Based on the symposiums, the METRO Board has adopted a resolution that states METRO's intention to provide the best state-of-the-art technology at the least cost and to track closely construction costs, operating costs and ridership projections.

During fiscal year 1990, METRO will continue its work with preliminary engineering and the final Environmental Impact Statement and to move forward simultaneously with decisions on the technology and private sector involvement for the System Connector. To support these activities and to position itself for the eventualities of land acquisition and construction in 1992, METRO requests $85 million from Section 3 funds.

I. COMPREHENSIVE URBAN MOBILITY PLAN

A. Background

During the 1960s and 1970s, Houston and the Harris County area experienced tremendous population growth. This growth has made Houston the largest city in Texas and one of the nation's largest cities with a regional population of 3.2 million (Houston PMSA). Although slowed in recent years as a result of the economic difficulties facing the oil and petro-chemical industries, Houston's growth has not stopped, and, in fact, many believe the downturn has bottomed out and Houston is on the road to recovery.

Despite the immediate past economic downturn, the consensus projection is that Houston's population will increase significantly by the year 2000. During this period, some of the region's major development patterns will continue to be focused

around four principal activity and employment centers. These are: the Central Business District (approximately 160,000 jobs); Galleria/Post Oak (approximately 52,000 jobs); Texas Medical Center (approximately 45,000 jobs); and Greenway Plaza (approximately 40,000 jobs). To put the size of these activity centers into perspective, the Galleria/Post Oak area provides as much office space as the central business districts of Pittsburgh or Atlanta. Approximately 24 percent of the workers in METRO's service area travel into one of the four major employment centers each day. As a result, streets and highways leading to these centers frequently experience severe traffic congestion.

Significant improvements have been made by METRO and the other regional transportation agencies over the past several years in addressing this congestion. Further aggressive transportation improvement efforts must continue, however, to truly address Houston's urban mobility problem. A comprehensive regional system must be put in place which is capable of integrating both private and public transportation modes.

B. METRO'S Phase I Program

The Metropolitan Transit Authority of Harris County was created in 1978 by a vote of the citizens of Houston and the surrounding area to develop a comprehensive mass transportation improvement program for the region. At the same time, the voters also approved a dedicated one-cent sales tax for mass transit which has provided nearly $1.5 billion to METRO for capital and operating costs through FY 1988. In FY 1989, this tax is expected to provide over $174 million in capital and operating funds.

In 1980, the METRO board approved a plan for a comprehensive, integrated transit system involving bus service and an 18.5 mile, $2.1 billion heavy rail system. The system was designed to meet travel demands in the Southwest-Westpark corridor, which included many of the region's largest and fastest growing residential and employment centers. With the rejection of that plan

by the voters in 1983, METRO was forced to reassess its priorities and to adopt a new, more comprehensive approach to transit planning. Through the 1983 election, Houston-area voters told METRO that they wanted more service, at a lower cost, available to a broader cross-section of the community. METRO heeded this message and adopted a new plan more carefully tailored to immediate local needs and resources.

This new plan provided the framework for the construction of a system of dedicated public transitways in Houston's major travel corridors. These limited access guideways are reserved exclusively for METRO bus and van pool operations and for private carpools, the guiding criteria being to maintain a free flow of traffic at the speed limit. When complete, this 95.5-mile system will provide more miles of bus transitways in Houston than in any other city in the United States. Presently, there are 39.1 miles of the system completed and operational. With the support of the Congress, METRO has been allocated $142 million from Section 3 for construction of these transitways. On behalf of METRO and the citizens of Houston, I want to express our gratitude to this Subcommittee for its strong support of these efforts.

The four transitways that are in operation now, carry a significant percent of the peak direction rush hour commuters in their respective freeways. These commuters move up to twice as fast as the automobile drivers in the adjacent lanes. With 3,600 riders per peak hour, the North Freeway is providing the equivalent peak direction carrying capacity of two adjacent freeway lanes. On the Katy Freeway, 3,800 people per peak hour travel the transitway, also equalling the carrying capacity of two adjacent freeway lanes. According to a recent Texas Transportation Institute report, the Katy Freeway transitway carries 21 percent of the vehicles and 46 percent of the people on the freeway in the peak hour/peak direction. One additional transitway will start construction this summer. A sixth transitway in

the U.S. 59 North (Eastex) Freeway is in planning and design. These transitways and the buses and high occupancy vehicles which travel them will continue to be a major element of METRO's comprehensive urban mobility system. By the year 2000, METRO estimates that the average peak hour travel on its transitway system will be approximately 9,300 vehicles and 46,000 people, or over 30 freeway lanes.

Houston has also completed a number of other capital projects over the past five years, including the opening of four new, highly-efficient maintenance centers to service its bus fleet and the construction of 20 park and ride facilities providing over 20,000 parking places in areas served by the METRO transitway network. METRO has also shown substantial improvement in service quality with a 98 percent on-time service record and has significantly expanded service, building from 381 vehicles in 1978 to 1,250 clean, comfortable vehicles at the end of 1988.
In 1981 the breakdown rate was less than 500 miles on average, METRO now operates with almost 13,000 miles between breakdowns -- the highest average in the United States. METRO's safety record has been the best among the large United States transit agencies for four consecutive years. In fact, METRO was so improved by 1986 that it won the American Public Transit Association's Award as the best large transit system in the country. I believe that these dramatic changes have bolstered public confidence in METRO, resulting in increased ridership and support.

II. PHASE II OF METRO'S REGIONAL TRANSIT PLAN

A. Background and Description

When the METRO Board adopted the regional transit plan concept, an overriding theme was to create a plan that was balanced and comprehensive. Phase I provided for the construction of transitways to move riders from outlying areas to employment centers and other destinations in the urban core. The purpose of Phase II is to complete the link between Houston's transitway

system and the region's major employment areas and to improve service to currently under-served areas. By adopting this purpose, METRO has transitioned from a transit agency into a general mobility agency. Phase II accomplishes this by tying together the various components of the regional mobility plan to create a single integrated transportation system.

The Phase II plan rests on a series of important underlying principles:

- a "pay-as-you-go" philosophy -- requiring no new taxes or new debt to support construction of the system;
- significant improvement in mobility for automobile drivers;
- implementation of a "System Connector" to tie the transitway system to Houston's major employment centers;
- improved transit services for east side and existing transit users;
- recovery of 40 to 50% of system operating costs from the farebox by 2000; and
- significant involvement of the private sector in the design and implementation of the plan.

These principles are reflected in the four components of the Phase II plan which are designed, in conjunction with the Phase I projects, to provide a comprehensive and fully integrated system of regional mobility. The four Phase II components are:

General Mobility Improvements. METRO will dedicate 25 percent of its sales tax receipts, approximately $560 million (1987 $), to continue its support of projects which will increase the roadway capacity throughout the region. Projects in this category will include connecting discontinuous streets, upgrading older streets to meet contemporary design standards, construction of high occupancy vehicle ramps from transitways into the freeways, and grade separations at locations now causing significant delay. No UMTA monies will be used by METRO for these projects. It seems likely, however, that 50 to 100 percent matching funds will be available from the Texas State Department of Highways and Public Transportation.

Buses and Support Facilities. The plan calls for spending approximately $320 million (1987 $) for bus replacement and construction of support facilities and bus passenger shelters. Over the next thirteen years, METRO will purchase approximately 1,100 vehicles to gradually replace the existing fleet. The average METRO bus travels 500,000 to 700,000 miles over a 10 to 12 year period. METRO's goal is to continue to provide a dependable, well-functioning fleet of buses that provide a viable alternative to the automobile.

There are also plans to build two new maintenance and support facilities. By continuing to upgrade its maintenance program, METRO will assure the quality of its basic bus service. The use of modern equipment will also keep operating costs low. The addition of 1,800 new bus passenger shelters by 2000, will enhance the accessibility of the system by bringing the region-wide total to 2,100 shelters.

Transit Centers and Park & Ride Lots. METRO will add 13 new transit centers to the existing five. These centers will provide "hubs" where passengers from various locations can board vehicles for express trips or transfer to other destinations. Twelve new Park & Ride lots will be constructed throughout the area adding 10,000 new parking spaces to the existing 20,000 spaces in the 20 existing Park & Ride lots.

Rail Component. The final component of the plan consists of 20 miles of rail linking the six public transitways to the downtown and other major regional employment centers. The rail system will converge with the bus routes at the regional transit centers, offering an opportunity to transfer to or from METRO's six transitways or other bus lines serving a number of destinations.

The rail project is comprised of two corridors. The first, the System Connector Loop, will be a "U" shaped configuration connecting the Downtown, South Main, Greenway Plaza, and Post Oak/Galleria areas.

- Downtown/Midtown leg (3.2 miles). The rail will be in subway in the downtown area under Main Street from Franklin to Hadley. The line will continue either aerial or in subway to Cleburne Street, then in subway under Richmond/Wheeler into the Blodgett Transit Center Station. This leg will serve 6 stations.

- Inner Southwest leg (4.4 miles). This portion of the rail line will be below grade from the Blodgett Transit Center to west of Greenbriar, variously in subway and below street level at the same level as the depressed section of the Southwest Freeway. The rail will rise to an elevated section along Westpark Street and the Southern Pacific Railroad to the South Rice Transit Center station. This leg will serve 5 stations.

- Post Oak leg (4.7 miles). The rail will be elevated over the Southwest Freeway to north of Richmond, then either aerial or in subway along Post Oak Boulevard. The line will continue along the West Loop, elevated over Memorial Drive and Katy Freeway into the Northwest Transit Center station. This leg will serve 6 stations.

The second corridor will connect the Texas Medical Center, the Southeast Transit Center and the Astrodome to the Downtown/South Main line.

- Texas Medical Center leg (2.6 miles). The rail is currently designed to be primarily at street level, extending south from the Blodgett Transit Center Station to the Texas Medical Center along a portion of either Main and Fannin/San Jacinto Streets or Almeda Boulevard. This leg will serve 5 stations.

- Southwest leg (2.8 miles). The rail is designed to continue at street level from the Texas Medical Center along Holcombe Boulevard and/or Old Spanish Trail to the Southeast Transit Center. This leg will serve 3 stations.

- Astrodome leg (2.0 miles). The decision to implement this leg is pending completion of ridership and cost-effectiveness analyses. It has been designed at-grade from the Texas Medical Center to the Astrodome, with the line elevated through the Astrodome parking lot to the main gate(s). This leg will serve 3 stations.

In total, the rail project will comprise 20 miles of two-directional rail lines defined in six segments with 7.6 miles of the line operational by 1998. Maps describing the general alignment of the rail project and its relationship both to the transitway network and the four major employment centers are provided in Figures 1 and 2.

B. Projected Ridership

Ridership estimates have been developed for each segment of the rail component. The highest peak hour and daily line

volumes are projected to occur between the Southwest Transit Center and the Central Business District. These volumes of 7,100 to 8,100 passengers per peak hour in peak direction are comparable to volumes achieved on other rail systems in the United States and Canada.

Reflecting recent industry experience, METRO is being careful in developing ridership estimates. For example, METRO has assumed a population increase of 17 percent through the year 2000. This reflects an annual growth rate of 1.3 percent -- substantially below Houston's long term history. Overall system ridership (including both bus and rail components) is assumed to increase an average 3.5 percent annually through the year 2000. This is considerably lower than the 10 percent average annual gain between 1980 and 1986.

In order to test these forecasts, the METRO Board enlisted the assistance of a task force of independent consultants to evaluate the staff projections against the experience of the Miami and Atlanta systems. The findings of the task force were reported to the Board in March 1986 and were incorporated in subsequent ridership re-estimates. Based on these analyses, forecasts were lowered to the present level. The recent ridership symposium provided additional review of the estimates. Further, we are constructing control models of other cities to provide up-to-date information on ridership and costs.

C. Phase II Costs and Financing

1. Project Schedule

The Phase II plan assumes a 12-year schedule for completion of the 20-mile rail project. Alternatives Analysis and the Draft Environmental Impact Statement for the Loop Corridor will be submitted at the end of April 1989. The DEIS for the Texas Medical Center corridor is scheduled for completion in late 1990. METRO expects to be in a position to begin actual construction by calendar year 1991. The first 7.6 mile segment from

the downtown area to the South Rice Transit Center is scheduled to open for service in 1998. The remaining segments will be opened sequentially, with the entire system set for completion by 2000.

METRO has devised an innovative procurement mechanism for the System Connector rail project in order to enhance the opportunity to obtain a state-of-the-art rail system which will provide the most system for the best price. I have included, at Figure 3, a chart which illustrates how the process of meeting federal requirements will proceed simultaneously with a competitive review of the potential involvement of the private sector and with active efforts to achieve direct business community participation in achieving cost goals for the rail system.

METRO has explored in detail the possibility of a modified turn-key or partial turn-key approach to the design and construction of the System Connector. The Board determined that even if a partial turn-key approach is used, METRO must maintain management control and public decision-making. During that exploration process, however, many private firms -- suppliers of transit vehicles and engineer-construction firms -- expressed their interest in a competitive comparison of System Connector costs under different technologies. The Board has decided to pursue this approach. Figure 3 shows how this competitive process will allow METRO to gain the best thinking of a limited number of firms which have been pre-qualified as capable of delivering a proven performance technology. METRO can then compare the binding cost proposals produced by these firms against the detailed cost estimates for a conventional approach to rail development and proceed with the best option.

This will be accomplished by METRO sharing the cost of developing firm, priced proposals with those firms pre-qualified for this step, thus minimizing their risk. It will take place during the preliminary engineering phase about to begin for the

System Connector Loop Corridor, and promises not only cost savings but other innovations in design and construction.

2. Project Cost and Schedule

The cost estimate for a 20-mile light rail System Connector project is $1.04 billion (in 1987 dollars). Although originally assumed to include some at grade segments, METRO believes that the competitive bidding from the private sector offers significant opportunity to procure a fully grade-separated system within the original budget.

By proceeding on a pay-as-you-go basis, METRO's schedule for development of the rail system must necessarily be tailored to available funds and the year-by-year cash flow of revenues and expenses. This dictates an orderly schedule proceeding with all deliberate speed, but not on a crash basis. Consequently, requests for federal matching grants and the appropriations to support those grants will also be orderly and predictable, spread more evenly over the 10 year period, without the extremely high, single year funding requests that would occur with a more accelerated project schedule.

3. Financing the System

a. Capital Costs. Meeting the long range transportation needs of the Houston area will require a serious financial commitment by all levels of government as well as the private sector. Of a total $2.6 billion in capital improvements included in METRO's Phase II plan, METRO will seek approximately 35 percent from federal sources. This plan will include expenditures for buses and support facilities, completion of the transitway system and other general mobility improvements in addition to the rail project.

For the rail project, METRO will cover a significant portion of capital costs through local, State and private funding sources. Substantial federal assistance, however, will also be required. For FY 1990, METRO is requesting a Section 3 commit-

ment of $85 million for preliminary engineering and other front-end project costs.

In concert with the FY 1990 appropriations request, METRO will ask UMTA for a Letter of No Prejudice for METRO expenditures for the System Connector Loop Corridor preliminary engineering and final Environmental Impact Statement preparation. This will cover costs incurred prior to formal approval of an UMTA grant for that purpose, and will ensure timely and orderly progress on the project while the grant application and approval process is moving along.

METRO will also request that a Letter of Intent to fund the project be issued by UMTA as soon as the Record of Decision on the final Environmental Impact Statement for the Loop Corridor is in place, in early 1991. The Letter of Intent will be an important signal in the process of obtaining local agreements for cost participation in the project from private sector interests, which in turn is important for the subsequent Full Funding Agreement with the federal government.

b. Operating Costs. METRO estimates that the rail component will carry approximately 34 million annual boarding passengers in the year 2000 (24 percent of total anticipated system ridership). Based on these ridership estimates, operating costs for the system, after depreciation, should remain approximately level with an improved level of service. METRO's financial plan provides that all operating costs for both the rail and bus systems will be derived from non-federal sources. The adoption of a "pay-as-you-go" philosophy will avoid the financial drain on future operating funds caused by debt service on construction bonds. Other rail systems have relied heavily on long term bonds to expedite construction. Some of these systems now face substantial annual debt costs -- in some cases as much or more than the annual cost of operating and maintaining the system. Oftentimes, these

costs reduce line frequency and reduce feeder bus service thereby lowering ridership. By adopting a "pay-as-you-go" philosophy, METRO has made a conscious decision to ensure that farebox revenues and the proceeds of its dedicated one-cent sales tax will be fully adequate to cover all future anticipated operating costs for the system.

To avoid over-optimism, we have based our financial projections on deliberately conservative assumptions, and have developed a plan for the 1988 to 2000 period which ensures year-by-year consistency between planned system and ridership growth and required operating and maintenance expenditures.

III. CONCLUSION

We think that the progress METRO is making is in keeping with the commitment made by the citizens of Houston to improved urban mobility. In 1978, they approved the development of a comprehensive transportation system plan designed to integrate improvements in arterial streets, freeways and public transit to meet the region's transportation needs. Although METRO has played a key role in this effort, it has required a high degree of cooperation among all of the major transportation agencies in the Houston area including the City, the County, the State Highway Department and METRO.

Since 1984, METRO has initiated a program to construct 95.5 miles of dedicated public transitways in six major freeway corridors -- more than any other city in the world. In conjunction with 31 planned and existing park and ride facilities and extensive local feeder bus services, these transitways will more than double Houston's freeway capacity. METRO's Phase II plan will complete this system by providing a fast and reliable link between these transitways and the region's major employment centers.

METRO expects to finance more than $130 million of the capital cost of its rail interconnector from private sources, and 65% of its total Phase II plan from local sources. Nevertheless,

substantial federal funding will be required to supplement these local efforts, particularly for the rail "System Connector." I believe that this project meets the criteria established by this Subcommittee and by UMTA for federal support for a number of reasons.

First, and I believe most important, is that the Phase II System Connector will allow METRO to complete an integrated, comprehensive public transportation system which will meet the mobility needs of the region well into the next century.

Second, METRO is committed to a cost-effective project design, based on realistic ridership and capital cost projections and tailored to meet Houston's unique transportation needs.

Third, METRO is prepared to match a federal Section 3 commitment to the project with significant contributions from other sources including state, local and private funds.

Fourth, there is strong local government, private sector and community support for the project. METRO's Phase II plan was approved by the voters with a 60 to 40 percent margin in a special referendum held on January 16, 1988.

Fifth, and finally, METRO is prepared to cover the entire cost of operating the system from non-federal sources, including the proceeds of its dedicated one-cent sales tax.

We believe that this combination of factors warrants the strong support of both the Congress and UMTA. I urge this Subcommittee and Congress to support Houston's FY1990 appropriations request.

[CLERK'S NOTE: Figures 1 and 2 follow. Figure 3 could not be printed in the hearing record but will be available for review from the subcommittee office.]

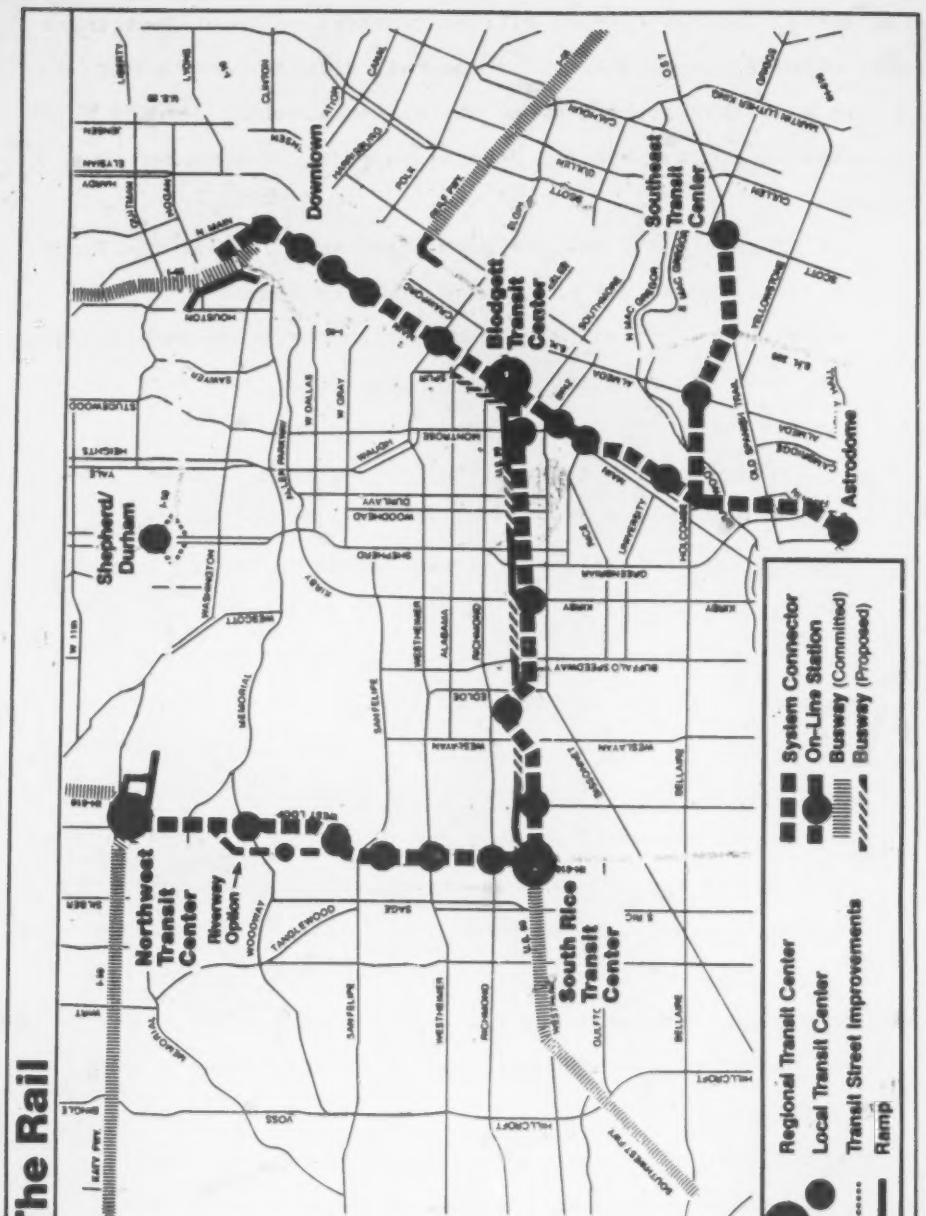

The Rail
Downtown
Northwest Transit Center
Riverway Option
Shepherd/ Durham
Blodgett Transit Center
Southeast Transit Center
South Rice Transit Center
Astrodome
Regional Transit Center
Local Transit Center
Transit Street Improvements
Ramp
System Connector
On-Line Station
Busway (Committed)
Busway (Proposed)

FIGURE 1

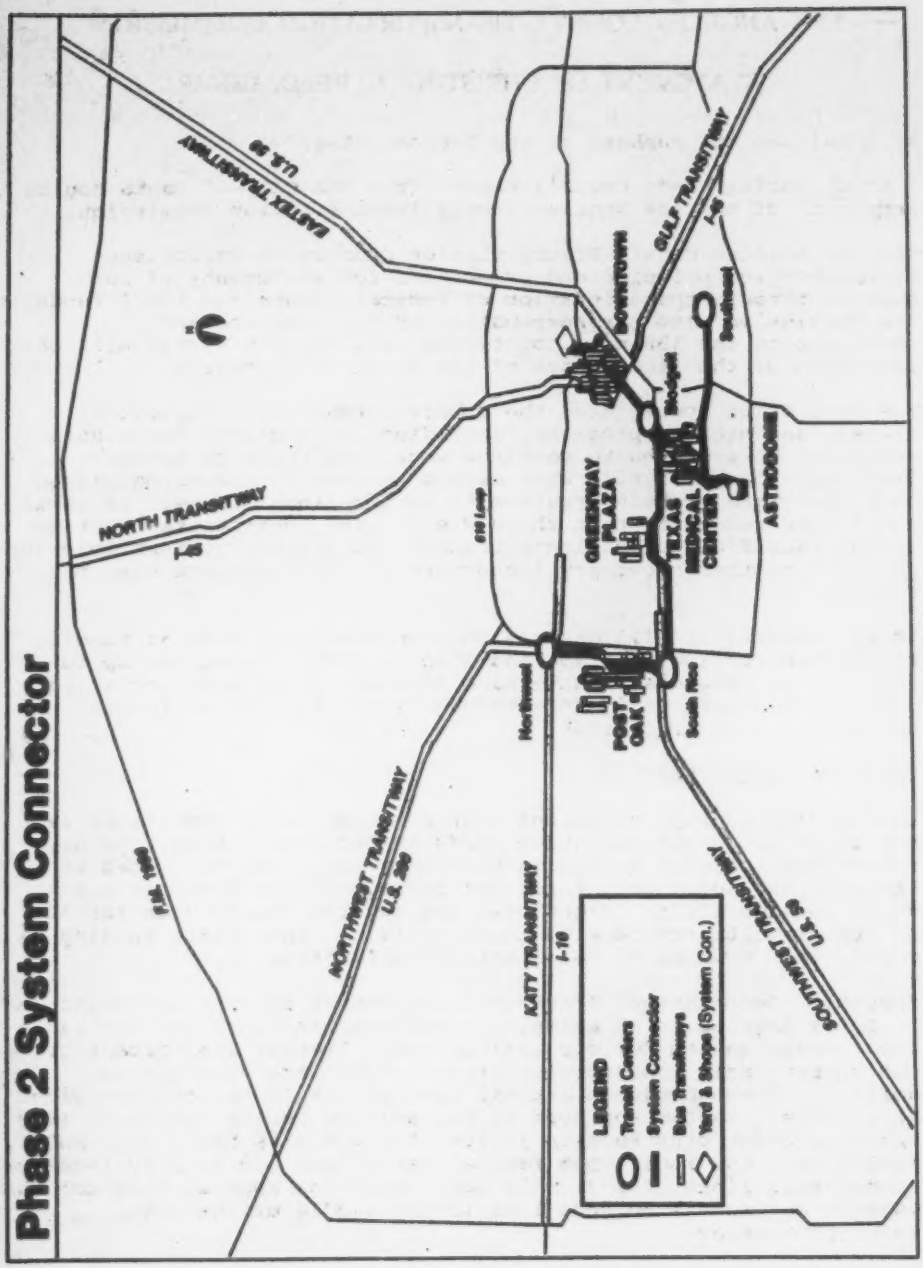

Phase 2 System Connector
EASTEX TRANSITWAY
U.S. 59
NORTH TRANSITWAY
I-45
610 Loop
GULF TRANSITWAY
I-45
DOWNTOWN
Northline
Eastwood
Southeast
GREENWAY PLAZA
TEXAS MEDICAL CENTER
ASTRODOME
POST OAK
Northwest
South Rice
NORTHWEST TRANSITWAY
U.S. 290
KATY TRANSITWAY
I-10
SOUTHWEST TRANSITWAY
U.S. 90
F.M. 1960
LEGEND
Transit Centers
System Connector
Bus Transitways
Yard & Shops (System Con.)

FIGURE 2

LOS ANGELES COUNTY TRANSPORTATION COMMISSION

STATEMENT OF CHRISTINE E. REED, CHAIR

Mr. Chairman and Members of the Subcommittee:

I am Christine Reed, Council Member from the City of Santa Monica and Chair of the Los Angeles County Transportation Commission.

The Los Angeles County Transportation Commission establishes transportation policies and priorities for the County of Los Angeles through the allocation of federal, state and local funds. The Commission also has responsibility for planning and constructing the 150-mile countywide rail transit system with the exception of the first phase of the Metro Rail project.

The Commission appreciates the subcommittee's past support of transit and highway programs, including Los Angeles' Metro Rail project. We urge you to continue your commitment to surface transportation at a time when even more demands are being placed on highway and transit programs to meet national as well as local goals. We recognize that there are funding constraints. But we cannot sacrifice our nation's transit and highway systems in order to pay for other necessary improvements. Each program must be funded.

In my comments, I will discuss the importance of federal funding for transportation programs and also, briefly, bring you up to date on the progress we have made in meeting the transportation needs of Southern California through a combination of federal, state, and local resources.

THE LOCAL COMMITMENT

Los Angeles County recognizes that a strong local commitment is needed to meet transportation needs is our communities. County voters have already adopted a half-cent sales tax dedicated to transit, and additional taxes for transportation purposes are under consideration. Right now, Los Angeles County pays for 60% of its transit service with local dollars. When state funding is added, this equates to 75% non-federal funding.

Recently, Secretary of Transportation Samuel Skinner indicated that Los Angeles is an example to other urban areas for our large local contribution for our rail system. Seventy-one percent of our current rail construction project funds are non-federal dollars. These projects are all part of the 150-mile countywide rail transit system approved by Los Angeles County voters in 1980. Projects under construction include the 4.4 mile Metro Rail MOS-1, funded on a 50% local, 50% federal basis, and two totally locally-funded rail lines: the 21 mile Long Beach-Los Angeles line and the 20-mile Norwalk-El Segundo line in the middle of the Glenn Anderson Freeway.

The local sales tax for transit, Proposition A, generates over $330 million annually and is used for bus and paratransit services as well as rail development. The county's thirteen bus operators, two privately-contracted bus services and over 80 cities receive transit funds from this local source.

In addition, the Los Angeles area business community has worked extensively with local government and transit agencies to support transportation programs. Through benefit assessment districts, local businesses will contribute directly to the Metro Rail project.

THE NEED FOR FEDERAL HIGHWAY AND TRANSIT FUNDING

Although Los Angeles County has taken the lead in generating local financial support for transportation programs, local funds alone cannot fully meet this area's current and future highway and transit needs. In recent years, federal transportation programs have experienced significant funding cuts and, as a result, local authorities and private enterprise have had to assume a greater role in funding transportation programs.

A strong funding commitment from the federal government is vital to maintain and improve our highway system and to provide dependable transit services. Transit, in particular, is being asked to meet more national and local needs than ever before. Transit is viewed as an answer to a growing list of national challenges:

- to help meet clean air standards
- to find alternative fuels to power our vehicles
- to reduce congestion on our highways by replacing single-occupancy vehicle trips (while being disadvantaged by the federal tax code)
- to meet the needs of disabled and elderly citizens who want additional mobility

While transit can help in these areas, its ability to respond is tied directly to the availability of dollars. Instead of increases in federal funding to meet these needs, transit dollars have been cut 50% in the past eight years. This year alone (FY 89) Section 9 Capital funding was cut 14.5%. That cut resulted in a reduction of $7.8 million for Los Angeles County bus operators. At this funding level, operators will have to cut 800 buses from their fleets over the next ten years, which is one-fourth of the bus service in the county.

Under the budget proposals of former President Reagan, transit would suffer even more. In Los Angeles County, all federal operating assistance would be eliminated resulting in a 20% bus fare hike or a cut of 43 million passenger trips per year. The proposed increased local match for Section 9 capital funds would result in a further delay of routine bus replacements. The combined impact of these proposals would be a 13% transit reduction, eliminating 70 million passenger trips annually. In addition, all Section 3 Discretionary Funds would be terminated, meaning a loss of federal dollars for the Los Angeles Metro Rail project. This would leave the project partially completed, greatly reducing the effectiveness of the entire 150-mile rail system planned for Los Angeles County. All of this is at a time that Los Angeles is depending on transit to help reduce congestion and meet federal clean air standards. Congestion and pollution would be further increased if federal funds for highways are limited as proposed by the Reagan budget. Local street projects, as well as major highway improvements, would be delayed.

FY 1990 APPROPRIATIONS

The Commission is requesting that federal highway funds be appropriated at the authorized level. This equates to a highway obligation ceiling of $12.35 billion for FY 1990. If cuts are necessary due to deficit reduction agreements, the Commission requests that the current ceiling ($12 billion) be retained. While this level of funding will only partially meet the highway, street and road needs across the nation, we believe it is the minimum amount acceptable to fund these necessary programs.

The LACTC requests that the Urban Mass Transportation Administration (UMTA) Section 3, 8, 9, 16(b)(2) and 18 programs be

funded at the levels authorized in H.R. 2. This equates to $2.1 billion for transit operating and capital programs, $1.07 billion for Section 3 programs, $35 million for Section 16(b)(2) programs, and $45 million for transportation planning. When coupled with the funding generated by our local sales tax earmarked for transit programs, these monies will allow transit operators and local jurisdictions in Los Angeles County to maintain existing service to the public.

The Commission further requests that the subcommittee continue its past support for the Los Angeles Metro Rail project. The project is well underway with the first segment to be operational in 1993. A full funding contract is now being negotiated with UMTA to begin construction on the second segment. The Los Angeles County Transportation Commission will be the grantee and will contract with the Southern California Rapid Transit District for construction. H.R. 2 authorized up to $284 million for Metro Rail in 1990. In light of funding constraints facing Congress, we are asking for only $150 million for FY 90, the minimum amount necessary to keep the project on schedule and avoid escalating costs and lay-offs. At the same time, due to the increasing number of agencies requesting Section 3 funds, we ask the subcommittee to consider increasing the total amount of Section 3 funds available for allocation.

The Commission wishes to stress that if reductions are necessary to transit programs that these be made across the board to all operators and programs so that one group of operators or program does not suffer to a greater degree than others. In addition, the cap on Section 9 operating assistance should not be reduced. Los Angeles is already restricted to using only half of its available monies for operations because of the cap. Further, the Interstate Transfer Program, if it is to be funded, should not receive monies at the expense of the Section 3 and Section 9 programs, as occurred in FY 1989. Los Angeles lost $7.8 million or 14.5% of its Section 9 capital monies this year, further delaying our bus replacement program.

Los Angeles also joins with small operators to request that a special appropriation of $8.8 million, separate from normal Section 9 allocations, be made available to small operators whose FY 89 apportionments were less than their operating caps.

STATUS OF THE LOS ANGELES COUNTY MULTI-MODAL TRANSPORTATION SYSTEM

RAIL TRANSIT

As you are aware, the Metro Rail line is the backbone of a countywide rail network that will run 150 miles when completed. The Metro Rail line will be the most heavily used segment of the system, with a projected ridership of over 300,000 passengers daily. Approximately half the cost of the first 4.4 mile segment of Metro Rail is being funded with local, state and private funds. This segment will be complete in 1993. Local funds are being used exclusively for the two other lines of the rail system now under construction. The LACTC is constructing the Long Beach-Los Angeles rail line, which will be operational in 1990, and the Norwalk-El Segundo rail line on the Glenn Anderson Freeway, which will open in 1993. The Norwalk-El Segundo rail line will connect with the Los Angeles International Airport and El Segundo employer center. Once the full funding contract is finalized with UMTA, LACTC will initiate construction on Phase 2 of Metro Rail, a 14-mile segment running from downtown Los Angeles to the San Fernando Valley and Wilshire/Western.

Studies are now underway for other lines of the 150-mile rail system in the county. Included in these are an east-west line through central Los Angeles County, a line from Los Angeles to

Pasadena, a North Coast line, and an east-west line through the San Fernando Valley.

BUS TRANSIT

Los Angeles is served by 12 municipal transit operators, one regional transit operator, paratransit programs sponsored by over 80 local jurisdictions, and by private operators under contract. Privately-operated bus service is provided through the San Gabriel Valley Transit Zone and the Bus Service Continuation Project. The South Bay Commuter Transportation Implementation Plan is scheduled to begin operation this summer. The Commission supports these privatization efforts when they result in reduced costs and consistent quality of service. In addition, the Commission coordinates all of these transit services and provides partial funding for them. Many of these programs are funded from the local half-percent sales tax earmarked for transit. Federal funds are a vital source as well.

COMMUTER RAIL

Several commuter rail lines are also under discussion for longer distance travel: Los Angeles to San Diego, Los Angeles to Santa Barbara, Los Angeles to San Bernardino, and Los Angeles to Saugus.

HIGHWAYS, STREETS AND ROADS

Guidance for development of the county's highways, streets and roads is provided in the Commission's highway plan, On the Road to the Year 2000. The goal of the plan is to maintain mobility in the county with cost-effective, congestion-and trip-reduction projects. Several major highway and street construction projects are underway at this time: construction of the Glenn Anderson (Century) Freeway, extension of the El Monte Busway into downtown Los Angeles, widening of Ventura Freeway, and construction of the ports demonstration project. In addition, preliminary engineering is underway for a Harbor Freeway Transitway, widening of the San Diego Freeway for a carpool lane, and the second phase of the ports project. A countywide system of linked carpool lanes is now under final review. We are also placing increased emphasis on systems management projects. Two of these are the SMART Streets Demonstration Project coordinating traffic flow on the Santa Monica Freeway and adjacent arterials, and the Service Authority for Freeway Emergencies ("SAFE"--freeway callbox) program. Federal assistance is being provided for all of these projects except for the SAFE program, which is locally-funded.

CONCLUSION

In summary, the Los Angeles County Transportation Commission is committed to improving and enhancing transportation for our citizens in the most cost-effective manner possible. I urge the subcommittee to ensure continued federal funding for vital transit and highway programs and to maintain the federal funding partnership for the Los Angeles Metro Rail project.

Thank you, Mr. Chairman and members, for giving me this opportunity to share with you the work and positions of the Los Angeles County Transportation Commission.

STATEMENT OF MARTA

MARTA FY'90 FEDERAL FUNDING REQUEST

EXECUTIVE SUMMARY

System Description

The approved MARTA rail system consists of 60 miles of heavy rail lines, 45 stations and 33,000 parking spaces. Thirty-two miles of track and 29 stations are in service (Phases A and B, as well as all of C, except the segment between Chamblee and Doraville). An additional 12 miles and 6 stations are under development and will open for passenger service between 1992 and 1995. This includes completing the last leg of Phase C, the segment between Chamblee and Doraville, as well as the ten-mile, five-station Phase D of the System.

System Expansion Beyond Phase D

The North Atlanta Corridor of the MARTA service area is one of the fastest developing corridors in the Region. The central portion of the corridor is becoming a dense urban center which rivals Downtown Atlanta. Accelerated growth has resulted in significant traffic congestion and delays. Use of public transportation is increasing due, in large part, to reverse commuters from the City of Atlanta traveling to jobs provided by the new employment centers in the corridor. The first transportation improvement which MARTA will make in this corridor is a six-mile, two-station rail line which will be built in the median of a highway facility called Georgia 400. This $218 million segment of the North Line will be financed completely with local funds. There will be stations at Buckhead, a major commercial office and retail center and at the Medical Center complex, a major concentration of hospitals and related medical activities.

FY'90 Federal Funding Request

If the extension of the rail line North of Medical Center is selected by UMTA as the most cost effective alternative, MARTA will seek approximately $396 million, or 75% of the total cost, over a four-year period to build the extension. In FY'90 MARTA is requesting a federal commitment of $99 million, which will permit the Authority to launch the development of the extension in 1990, with the possibility of completion in 1995. If this schedule is realized, the total cost of the extension will be reduced from $528 million to $485 million.

Benefit of System Expansion

Addition of the North Line to the MARTA rail system will generate substantial benefits in terms of new riders, travel time savings, and new commercial and retail development.

Background

The Metropolitan Atlanta Rapid Transit Authority (MARTA) is an independent, single-purpose agency created by the Georgia General Assembly to plan, build and operate public transportation in Metropolitan Atlanta. At the present time the System's service is limited to the three most populous jurisdictions in the Region: the City of Atlanta, DeKalb County and Fulton County.

In 1971, the voters of the above three jurisdictions approved a comprehensive public transportation plan, including bus improvements as well as construction of a rapid rail transit system. The voters also authorized the local governments to levy a 1% sales and use tax dedicated to MARTA.

Since 1971 MARTA has made numerous capital and service improvements involving the Bus System: new equipment; new

maintenance and operating garages; passenger shelters; new bus routes; improved frequencies; extended operating hours; improved schedule information, etc. In addition, MARTA has been aggressively implementing the rapid rail transit plan.

The MARTA Rail Plan

Description

As approved by the voters in 1971 and as subsequently amended, the MARTA Rail Plan consists of 60 miles of heavy rail lines, 45 stations and 33,000 parking spaces. The network includes two (2) main trunk lines that intersect in the Atlanta Central Business District, four (4) rail branches, one (1) feeder rail line, and one busway (See Attachment #1).

Current Operating System

MARTA has been building the rail system in phases, giving priority to those segments which promise the greatest return on investment or which are given priority for reasons of construction staging or operating efficiencies.

MARTA has in service 32 miles of track, 29 stations and 17,000 parking spaces. All of Phases A and B (See Attachment #1) are in service as well as all of Phase C except the segment between Chamblee and Doraville.

Current Rail Construction Program

MARTA has under development at the present time 12 miles of track and 6 stations. This includes the last segment of Phase C -- two (2) miles of track and one (1) station between Chamblee and Doraville which will open in December 1992.

Phase D of the MARTA System consists of 10 miles of track and 5 stations. It includes three segments: 1) extension of the East

Line from Avondale to Indian Creek -- 3 miles of track and 2 stations; 2) construction of a feeder line between the Ashby Street station on the West Line to Bankhead Highway -- one mile and one station; and 3) the first leg of the North Line, from Lindbergh to the Medical Center -- six (6) miles and two (2) stations. Both detail design and land acquisition on Phase D are well under way. Construction contracts will be awarded starting this calendar year. Revenue service to Bankhead is scheduled to begin in mid 1992; to Kensington and Indian Creek in mid 1993; and to Buckhead and Medical Center in mid 1995.

The total cost of Phase D is $456 million, of which the Federal Government is providing $135 million or 30%, all of which is being applied to the East Line extension from Avondale to Indian Creek. In FY'88, Congress appropriated $106 million for the East Line and in FY'89 $29 million. No additional Federal funds are expected for the East Line or for any other segment in Phase D. The balance of the funding -- $321 million or 70% of the total cost, will come from local resources.

When Phase D is completed in the mid-90's, MARTA's rail operating system will consist of 44 miles of track and 35 stations. The Federal government is providing $1.5 billion or 53% of the $2.9 billion cost. The local share is $1.4 billion or 47%.

Future Rail Construction: The North Metropolitan Atlanta Corridor

With Phase D fully funded and under development, MARTA is now turning its attention to the next phase of system development.

The Atlanta Metropolitan Region is one of the fastest growing urban areas in the United States. Its current population is 2.2 million, up from 1.8 million in 1980; employment is 1.2 million, up from 881,000 in 1980. In 2010, the Region's population will reach 3.7 million and employment 2.4 million.

Land Use, Population and Employment in the North Atlanta Corridor

The North Atlanta Corridor has been the scene of rapid growth and change for 20 years. During this period, land has been converted from farms, woodlands and a few homesites, to major institutional, office and retail uses. Property that was developed commercially ten to fifteen years ago is now being redeveloped to higher densities (Attachment #2).

The 1980 Census reported a population of 147,619 for the North Atlanta Corridor, or eight percent of the seven-county Region's total. Since 1980, the area has experienced a 61% increase in population to 237,100. Employment has increased 119 percent, from 53,059 to 116,500. By the year 2010, population will be 431,000; employment will be 270,000.

Transportation

The overall trend in the Corridor has been a shift from a predominantly upper-income residential community to a mixture of upper-income residential and a strong commercial node within the Atlanta Region As the rapid growth in commercial employment restricts residential growth, an increasing proportion of jobs in the area will be filled by residents from outside the area and the Corridor will become more a commuter zone.

The number one "boom towns" (Marietta and Roswell, Ga.) in the country as reported in the March 27, 1989 edition of the Wall Street Journal are located in this Corridor. In the last five

years, 20,000 new jobs have been created in Marietta and Roswell. Another 50,000 are projected between now and 1993.

The central portion of the Corridor is becoming a dense urban center and will soon rival downtown Atlanta. Sixteen million square feet of commercial space exists now or is under development in the central portion of the corridor. Just north of the core another 30 million square feet of space exists or will be developed. This accelerated growth has resulted in significant traffic congestion and delays. At the same time, the increasing use of public transportation is due in large part to reverse commuters from the City of Atlanta travelling to jobs provided by the new employment centers.

The MARTA North Line

City, county and regional plans and policies have addressed issues pertaining to the development of the region's transportation system and economic viability. The transportation system proposed for the North Atlanta corridor is consistent with goals that have been pursued since the 1960s when local officials and MARTA first identified radial corridors and mass transit options for the Atlanta metropolitan region. Subsequent studies further refined and ranked the corridors based on criteria which included highway congestion, job growth, and potential ridership. As a result of a Blue Ribbon Study Committee (the MARTA Committee of 50) Report issued in 1986, a decision was made to select the North Atlanta Corridor as the highest priority corridor and to direct transit improvement funds to this corridor.

As a corridor of rapidly expanding job opportunities (up to 38,000 employees per acre) with major arterials and feeder

streets operating at, or above, theoretical capacity levels, and the opportunity to serve patrons who have no viable alternative to congested roads for access to the other job centers in the metropolitan area, the North Atlanta Corridor is considered by Atlanta region officials to be a prime candidate for the next step in transit improvements. Thus, the North Atlanta Corridor transportation project is consistent with the plans, policies and goals of the city and region.

The MARTA North Line is the next logical phase of system development.

The MARTA North Line (See Attachment #1) branches off the Northeast Line in the vicinity of Lenox Square, one of the largest regional shopping centers in the metropolitan area. The first two segments of the Line consist of 5.7 miles of heavy rail and two stations which will be built in conjunction with a major highway improvement (GA 400). The rail segments from Buckhead to Medical Center, estimated to cost $218 million, will be fully financed with local funds.

The study of alternative ways of extending public transportation service North of Medical Center further into the job-rich, heavily congested North Atlanta Corridor is nearing completion. A final decision by UMTA on a preferred alternative is expected this summer. Based on the results of technical studies, extension of the rail line appears to be the best of six alternatives analyzed.

FY'90 Federal Funding Request

The estimated cost of a rail extension from Medical Center to North Springs, a distance of 3.1 miles with 3 stations is $528

million based on a 1998 completion date. This includes approximately $67 million to purchase additional vehicles. MARTA will be requesting a total Federal financial commitment of $396 million over a four year period for the North Line extension. This represents 75% of the cost of the extension. However, it is only 53% of the total cost of the North Rail Line (from the branch near Lenox Shopping Center to North Springs Station -- 8.8 miles and 5 stations).

MARTA is requesting $99 million in Federal Fiscal Year 1990 UMTA Section 3 Funds. This level of funding will permit the Authority to launch the development of the extension in 1990 with the possibility of completion in 1995, thereby reducing the total cost from $528 million to $485.

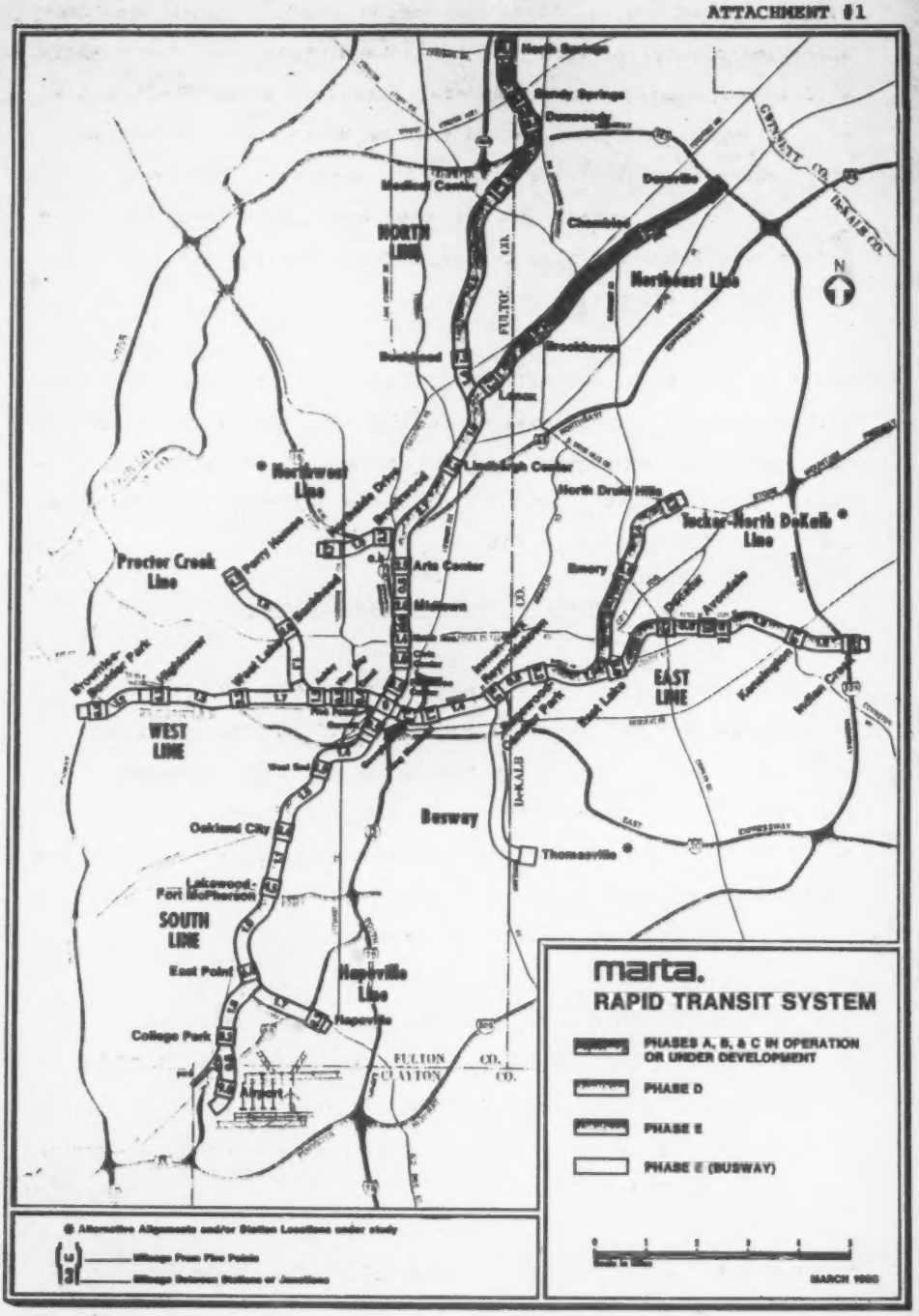
Benefits of System Expansion

The addition of the North Line to the MARTA Rail System will provide substantial benefits in terms of increased ridership, especially reverse commuting from areas of high unemployment in the central city to job-rich suburban employment centers. In addition, further reductions in per passenger operating cost are expected along with improved travel time savings and positive impacts on commercial retail development.

The addition of the North Line to the MARTA Rail System will increase the year 2005 daily rail ridership from 340,000 to 360,000 trips. (The year 2005 is the transit planning design year mandated by the Urban Mass Transportation Administration for major capital projects.)

The North Atlanta Corridor is developing at a very rapid pace. Action now on the proposed MARTA expansion will help guide and shape the development and will preclude the necessity of building MARTA facilities in a fully developed area with all that this would mean in terms of disruption and added cost.

ATTACHMENT #1



ATTACHMENT #2

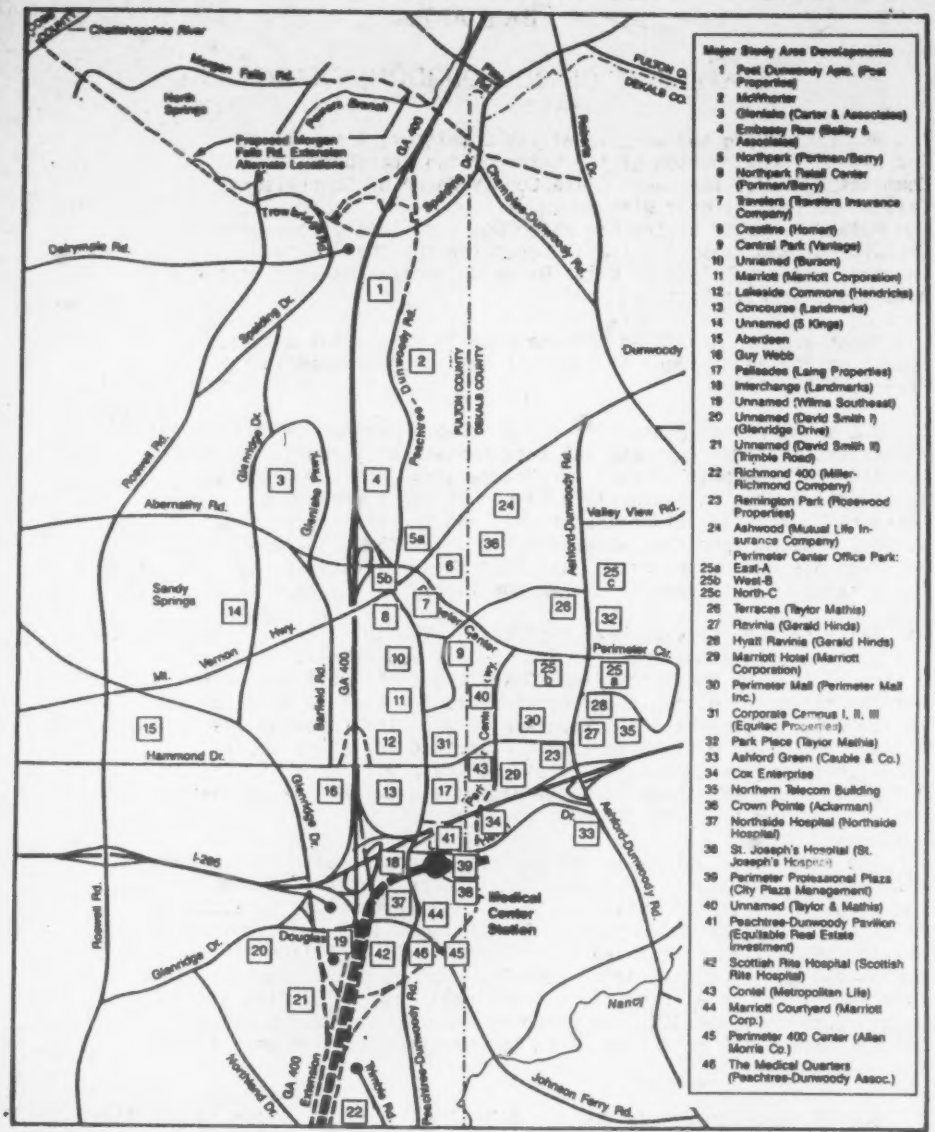


Figure 5.2

Major Development in North Atlanta Corridor

METROPOLITAN TRANSPORTATION COMMISSION, SAN FRANCISCO BAY AREA

STATEMENT OF ROD DIRIDON, CHAIRPERSON

Mr. Lautenberg and members of the Committee, I am Rod Diridon, Chairperson of the Metropolitan Transportation Commission and of the Santa Clara County Board of Supervisors. My fellow MTC Commissioner with me today is Tom Nolan, a member of the San Mateo Board of Supervisors and Chairman of SamTrans, the transit operator for the County. Together, we are joined by Keith Bernard, General Manager of the Bay Area Rapid Transit District - BART.

Thank you for providing the opportunity to present a status report on the development of our rail extension program in the San Francisco Bay Area.

MTC sponsors the overall rail improvement program which includes extensions for four separate but interconnected systems. The four systems run the gamut of rail service ranging from the Guadalupe light rail system in Santa Clara County to San Francisco's metro-rail, the CalTrain commuter rail and the BART heavy rail system. The MTC program, adopted in March, 1988, embodies improvements and extensions of all four systems which can be appreciated by referring to the map on the easel (Attachment 1).

Existing rail services are depicted by the solid heavy lines. The planned extensions are depicted by dots and dashes. Note at the bottom of the map the Santa Clara Guadalupe light rail line which will be extended in the Tasman corridor to the east to Milpitas and to the west to Sunnyvale and Mountain View as indicated by the dotted line. The Muni Metro in San Francisco envisions short extensions shown with smaller dots. CalTrain extensions to the north and south are shown by white dashed lines. BART's extensions are illustrated by black dashed lines.

The Muni Metro extension and CalTrain southern extension are financed by commitments predating MTC's current extension program. The remaining CalTrain, BART and Santa Clara extensions total 35 miles which are estimated to cost $2.4 billion in current dollars. The sources of funds proposed to finance the $2.4 billion are as summarized at the easel (Attachment 2). We are proud to report that over 60% of the total cost comes from local taxes, 10% from State grants and less than 30% from proposed federal grants. Secretary Skinner needs look no further than the Bay Area to find very strong local commitment.

Our FY 1990 request is for the BART Colma Station, which is the first of four new stations to be built on the way to the San Francisco Airport, and the Tasman Corridor extension of the Santa Clara light rail system. We seek $30 million for Colma Station construction and $4 million for Tasman preliminary engineering.

We seek also a Congressional push in support of planning for the next round of extensions in the form of report language which would encourage UMTA to permit an alternative analysis for a BART extension to San Jose. Given the long time needed to perform such work, it is not too soon to begin the next round of planning.

In a moment Tom and Keith will briefly discuss the BART extensions. The Tasman project is in my county, Santa Clara, where it will link the soon to be completed Guadalupe light rail line with the CalTrain service in the west and a future BART extension on the east. Your support made the Guadalupe project possible - the northern segment runs impressively now - and the planned extensions will fill out the network. Thanks so much for your help.

Permit me to return for a minute to the very strong local commitment that supports the MTC program. The program was first adopted in March, 1988, partly in response to admonition from our Congressional delegation and your Committee. We have made surprising progress since then. First there was a historic agreement between BART and SamTrans which provides for a $200 million transfer of local funds from SamTrans to BART. Next there were two successful local elections which together with previously voted-on funds, provide $1.3 billion in local sales tax support. In further reaffirmation, the voters in 7 counties gave a 70% approval of a bridge toll increase which provides another $150 million. The California Transportation Commission (CTC) has pledged $200 million plus $48 million inflation allowance to the plan. And finally, UMTA Administrator, Al DelliBovi awarded a $10 million grant for environmental studies and preliminary engineering to get the ball rolling.

Despite our best efforts and the support of your committee, the federal share of our proposed rail extension program will be in jeopardy if the Administration's transit budget proposals prevail. The overall transit budget must be sustained in order for there to be a sufficient UMTA Section 3 new starts program to draw upon. We recognize we must work with our colleagues in the transit industry to help you preserve the larger transit program.

Now let me ask my colleagues here today to outline briefly the historic BART/SamTrans agreement which is central to the substantial local funding found in our proposal.

First, Tom Nolan will identify his county's role. Keith Bernard will then tell the BART story.

Tom Nolan:

I will keep my comments brief, but I would like to emphasize the major local commitment made by this region as a whole and by my county in particular.

San Mateo County voters have passed a series of elections that are relevant to our claim to be a partner in this program. The first 1/2¢ sales tax for transit passed in 1974. Elections to authorize use of these revenues for BART were approved in 1985 and 1987. And finally, another 1/2¢ sales tax for improving CalTrain as part of a larger transportation package was adopted in June, 1988. Altogether, SamTrans pledges almost $600 million to the $2.4 billion rail extension program.

The June, 1988 vote came close on the heels of our agreement with BART regarding the terms and conditions associated with extending BART into our county and to the airport. The payment by San Mateo to BART in increments which will total $200 million, tied to development of the airport line, makes it possible for East Bay counties to realize longstanding rail extensions there. It also provides the key to East Bay support for federal funding of an extension in our county. The message is clear: all pieces of this puzzle, including federal funding, must fit in order for progress to be made. Keith will elaborate further.

Keith Bernard:

I would like to briefly describe to you the Colma Station Project which is the subject of our request for funding.

The Colma Station will be located 1.5 miles south of the existing Daly City Station in unincorporated San Mateo County, adjacent to the town of Colma and next to our new yard facility. The Colma Station is the first of our stations planned for an extension of BART to the San Francisco International Airport. This extension is the key element in the Bay Area regional rail agreement which will deliver three BART extensions in the East Bay -- from Concord to West Pittsburg in Contra Costa County, and from San Leandro to Dublin and from Fremont to Warm Springs in Alameda County.

The Colma station is expected to attract 15,000 trips a day and to cost ninety million dollars; 25% to be funded by SamTrans and 75% by the Federal Government. The station will be ideally located. It will be directly

accessible from both an interstate freeway and a major arterial serving several San Mateo County cities. Plenty of parking is planned; Approximately 2,200 spaces.

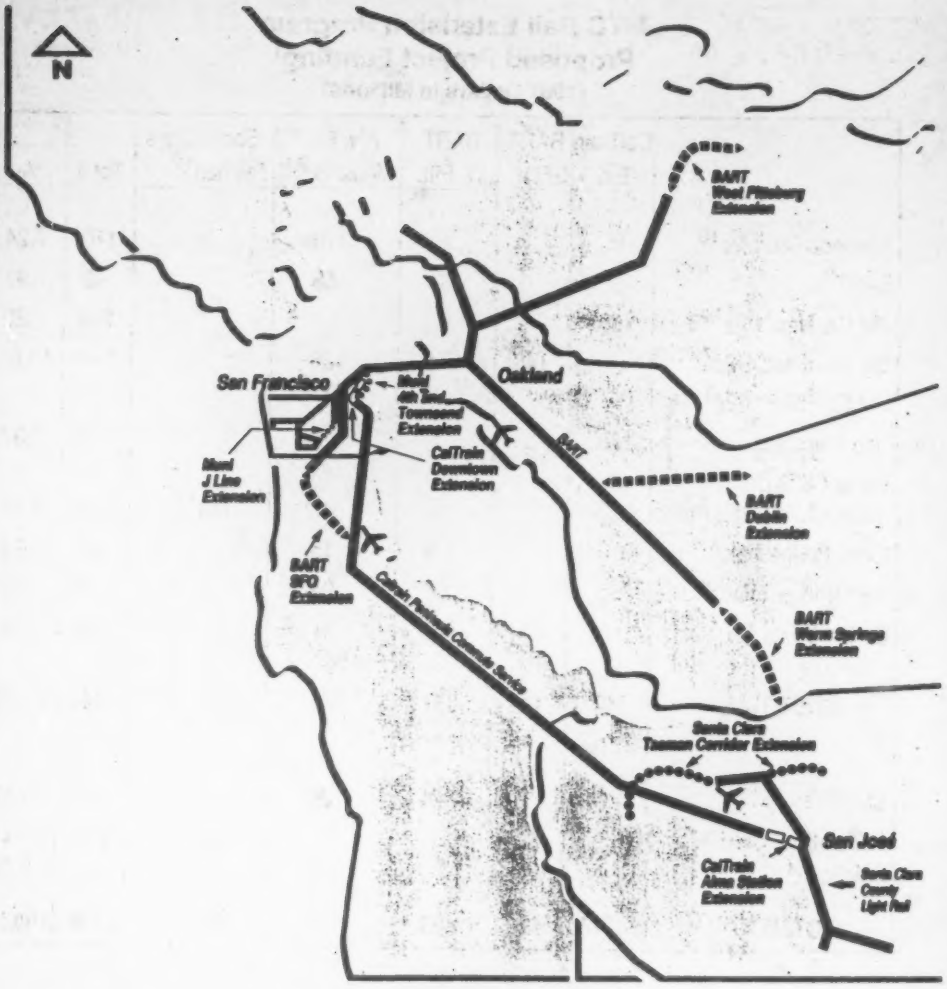
The station will serve two primary purposes. It will 1) relieve the heavily utilized and congested Daly City Station and 2) provide improved access to BART for Mateo County residents.

Over 80% of the current Daly City Station patrons reside in San Mateo County. Daly City is our most heavily utilized station outside of downtown San Francisco. It is expected that San Mateo County's demand for BART will continue to expand because of anticipated employment and population growth in Northern San Mateo County over the next decade.

The Colma Station project has also been the subject of a federally sponsored alternative analysis and environmental study completed last fall. In December, the BART Colma Station was selected as the locally preferred alternative.

The Colma project has a total cost per new rider which is below the federal cost effectiveness threshold. We expect to be ready to begin construction in the FY 1990.

Please support the program including Colma Station funding this year so we will all be able to get around the region in the future.



MTC
METROPOLITAN
TRANSPORTATION
COMMISSION

Rail Extension Plan

MTC Rail Extension Program
Proposed Project Funding[1]
(1987 Dollars in Millions)

	CalTrain Ext.	BART SFO[11]	BART W. Pitt.	Ala. Co. Meas. B [2,9]	Santa Clara Tasman[12,13]	Total	%
Alameda Co. 1/2¢[10]				170		170	7.24
BART[8]			34	58		92	3.92
SM Co. New 1/2¢[10]	169					169	7.20
SM Co. Exist. 1/2¢[7,8,10]		148	74	126		348	14.82
SM Co. Exist. 1/2¢[10] San Francisco Santa Clara Co.	173[6]					173	7.37
Santa Clara (Light Rail)					140[14]	140	5.96
Exist. Bridge Tolls[8]			9	15		24	1.02
New Bridge Tolls[3,8]			56	94		150	6.39
Contra Costa Co.1/2¢[10]			178			178	7.58
SUBTOTAL	342	148	351	463	140	1,444	61.50
State[8]			74	126		200	8.52
Federal	109	442			140	691	29.43
Balance[4]				13		13	0.55
TOTAL	451[5]	590	425	602	280	2,348	100.0

1) This chart demonstrates that a commitment can be made to a feasible funding program for these five rail extensions. To the extent future decisions cause changes to these estimates, MTC will seek replacement from comparable funding sources.

2) BART-Dublin, BART-Warm Springs.

3) From toll increase on bay bridges.

4) Private or other sources.

5) Subject to Environmental Impact Statement findings.

6) Subject to agreement between San Francisco, Santa Clara and San Mateo transit agencies.

7) Subject to agreement between BART and SamTrans.

8) The fund division between Alameda and Contra Costa County projects assumed to be made on the basis of their relative population; i.e., 62.8% to the Alameda projects and 37.2% to the Contra Costa projects.

9) Should the Fremont-South Bay Alternatives Analysis findings not demonstrate project feasibility, redirection of certain funds now earmarked for the Warm Springs extension would be permitted.

10) Local sales tax.

11) BART-SFO (including Colma Station) is the number one regional priority for federal new start funds.

12) The Tasman light rail corridor is the number two priority for federal new start funds.

13) The cost estimate includes a single line extension to Mountain View or Sunnyvale. If two lines are adopted, the second will be totally funded with local revenues.

14) The local share may be reduced by state revenue attributable to Santa Clara County as defined in pending legislation or initiative.

STATEMENT OF THE NATIONAL ASSOCIATION FOR TRANSPORTATION ALTERNATIVES

Chairman Lautenberg and other members of the committee, we appreciate this opportunity to provide you with our organization's recommendations relative to Fiscal 1990 funding for the Urban Mass Transportation Administration. We also appreciate the strong support that you have provided to our sector of the transit industry in the past. We sincerely hope that you will be able to continue that support in setting funding levels for the Fiscal 1990 programs.

As you know, the National Association for Transportation Alternatives (NASTA) is an organization of smaller transportation agencies providing public and/or specialized service -- frequently but not exclusively in rural areas and small towns and cities. We have been in existence since the end of 1983 and have a membership of about 300 operators and other agencies concerned with community transportation. Our membership includes a number of state program managers. NASTA also plays an active role in the national Rural Transit Assistance Program (RTAP) originally created by this subcommittee, operating a Peer-to-Peer Technical Assistance Network.

Community Transportation Serves Those Most Transit-Dependent

NASTA's members use the term 'Community Transportation' to describe our part of the transit industry. In addition to operating at a more modest scale, we find that the focus of our operations is less on providing an alternative to the private automobile in commuting than simply meeting basic mobility needs. The core of our ridership is made up of people who are truly transit-dependent --the old, the disabled, those with modest incomes. While there are no national statistics on ridership characteristics by size of place served, all of the state information that we have seen confirms that the elderly and other transit-dependent groups are a far more important part of the ridership of systems in rural areas and in smaller urban places than in the large urban centers.

In Pennsylvania, for example, the elderly make up 10.6 percent of all riders in the large urbanized areas, 27.2 percent of total ridership in small urbanized areas and 44.5 percent of all riders on rural public transportation. In Georgia, the contrast is even more marked. Less than 2 percent of those riding MARTA in Atlanta is reported to be elderly or handicapped, compared with 4 percent of riders in the small urbanized areas. More than 56 percent of riders on the Sec. 18 systems are elderly. In Minnesota, a similar pattern: in the largest urbanized area, about 10 percent of transit ridership is elderly, in the smaller urbanized areas, the share rises to 11 percent, and outside the urbanized areas it goes above 50 percent. Statistics for Iowa are less dramatic but show the same pattern: in urbanized areas, 16 percent of riders are elderly, while in rural areas it is 37 percent.

All of this is merely to emphasize that when we urge you to provide assistance to community transportation, we are urging you to help those who are most in need of that assistance.

As background for our specific funding recommendations, I would like to touch briefly on some points that underline the need for the funding levels we are recommending.

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Small Urbanized Areas

1) Sec. 9(a) formula assistance goes to transit providers in about 200 urbanized areas of less than 200,000 population. It should be noted that this still leaves about one-fifth of those smaller urbanized areas unserved by federally-funded transit. The erosion in recent years of the funding for Sec. 9(a) has had the effect of reducing available support below the authorized operating assistance level in nearly half the states. Application of scheduled inflation adjustments will make the situation that much worse in Fiscal 1990 if no remedial action is taken. NASTA recommends supplemental funding to bring the level of Sec. 9(a) assistance up to $162 million next year.

Rural Public Transit

2) Sec. 18 formula assistance goes for public transportation service in non-urbanized areas. This program is now in its second decade and has been very successful. But its success has added to the pressures on available resources. Over the last five years, total obligation levels in Sec. 18 have averaged more than $103 million annually, a figure half-again as large as the average appropriation in the same years. This has been possible only through the use of funds transferred from the Sec. 9(a) program. But, with the funding crisis in that program noted a moment ago, this is no longer a viable source of needed funds. NASTA recommends that Congress continue to supplement the Sec. 18 formula funds and we urge an FY'90 program level of $85 million. This would still reflect a reduction from the level at which the program has operated in recent years and represents less than 5 percent of formula assistance for a program that is expected to serve nearly 40 percent of the nation's people.

Elderly and Handicapped Transportation

3) The Sec. 16(b)(2) program of capital assistance for elderly and handicapped transportation is another relatively small program with major and widespread impact. As you know, it has been capped at $35 million for the past three years -- while the demand for greater access to transportation has been increasing. Last Fall NASTA carried out a survey of state managers for the 16(b)(2) program. We got responses from three-fourths of them and the majority indicated that current funding levels for this program fall substantially short of what is needed. In dollar levels, their responses indicate a need for at least $55 million in funding and that is the level NASTA recommends for this program.

In addition to its funding needs, Sec. 16(b)(2) has a regulatory problem of UMTA's making. Several years ago, in response to suggestions by state officials and in line with the goal of coordination of elderly and handicapped transportation with other transportation, UMTA developed a set of procedures under which vehicles funded with 16(b)(2) assistance could be leased to public agencies for operation. The procedures were designed to assure that 16(b)(2) funds were not being substituted for other public transit funding while giving the program the flexibility which is needed to develop truly coordinated transportation at the local level. Last Summer, without warning or discussion -- and without any real explanation of why -- UMTA announced that those procedures would no longer apply and that 16(b)(2) vehicles could not be leased to public bodies under any circumstances. In our view, this decision is contrary to the intent of Sec. 16 of the Urban Mass Transportation Act and it is certainly contrary to the goal of coordinated transportation. We therefore urge this committee to go on record directing UMTA to

return to the 16(b)(2) leasing procedures that were in effect prior to last July.

Rural Transit Assistance Program

4) Our fourth recommendation has to do with the Rural Transit Assistance Program (RTAP). This vital source of support to the states and local operators was created as a result of a congressional initiative. It is now in its third year and is extremely popular. For the first time, rural operators and state program managers alike feel that they have a dedicated support system in the areas of research, training and technical assistance and it means a great deal to them. For the past two years, the budget recommendations from the White House have included no funding for this program. However, it is worth noting that when the UMTA Administrator was before you last month, he included RTAP activities among the accomplishments of his agency.

NASTA has two recommendations with regard to RTAP funding. One is to urge that in addition to its continuation, an inflation adjustment of 10 percent be added to last year's funding level and the basic program provided with $5.5 million in FY'90. In addition, it is NASTA's view that the time is right for an assessment and review of rural and specialized transportation and that RTAP is a logical vehicle to secure that assessment and review.

STAR Initiative

In recent years, major economic and demographic changes have taken place that have had a significant impact on the passenger transit needs of rural communities and the transportation disadvantaged. NASTA proposes a Special Transportation Assessment and Review (STAR) project, which would be a multi-year research effort designed to assess the adequacy of existing community transit programs serving rural areas and disadvantaged populations, to analyze current and projected industry trends, and to document existing areas of unmet need. It would identify program features and experiences that reflect special merit or some sort of problem area, and seek to assess the current roles of national, state and local government in program development, management and oversight.

In addition, special attention should be given to such issues as assessing the impact of deregulation on rural mobility; inventorying existing and future capital assistance needs in rural areas for adequate facilities and accessible services; and improving the coordination of public and human service transportation resources.

Since a logical starting place for this review would be the community transportation database currently being updated under RTAP, NASTA recommends that an additional $500,000 in FY'90 funds be provided to RTAP and ear-marked for support of this two-year effort.

Research/Training and Human Resources

5) NASTA has become increasingly concerned at the sharp reduction that has taken place in funding for research, training and human resources at UMTA. From more than $50 million a year five years ago, this area of support for transit has been cut to $10 million, and within that amount there have been specific ear-marks for individual projects. We have endorsed and continue to endorse funding for the Easter Seals "Project Action." At the

same time, we feel that the very large cutbacks which have characterized this part of the budget are extremely short-sighted. Thus, our final recommendation is that the increased use of Mass Transit Account funds, which NASTA is recommending, include a supplement of $10 million for research, training and human resource programs, so that at least $20 million will be available in FY'90 for these activities (including the final installment of $650,000 for the Easter Seal project).

Summary

In making these recommendations, NASTA is very conscious of the tight fiscal constraints which Congress and this committee face. We are not calling for "full funding" or levels of support which would meet all of our constituency's needs by any means. But we are also conscious that transit support has been cut steadily over the past half-dozen years and we believe that it should no longer be singled out -- as the administration seems to do -- as a place to make even further funding cuts. Instead, NASTA urges that transit support from general funds be held at the FY'89 level while use of the available and dedicated funds in the Mass Transit Account of the Highway Trust Fund is expanded modestly. Specifically, we recommend a $1.3 billion funding level from the Mass Transit Account, which would add $80 million to the funds available for formula assistance. We recommend that $50 million of that increase be used to fund a State Initiative Block Grant for use in small urbanized areas and non-urbanized areas -- along the lines proposed in H. R. 368, the Rural Transportation Equity bill introduced by Rep. Smith of Nebraska.[1] Another $6 million would be ear-marked for RTAP. A similar increase in Sec. 3 discretionary funding would be more than enough to fund the recommended increase in Sec. 16(b)(2) assistance and the supplemental funding for Research/Training and Human Resources..

The two sets of figures on the following page summarize the net funding levels we are recommending. In addition, we are attaching a table showing the state-by-state impact of our recommendations.

	Prop'd FY 1990	Change from FY'89
Large Urbanized Areas	$1,502.4 m.	+ 2.8%
Small Urbanized Areas*	161.8 m.	+ 14.4%
Non-Urbanized Areas*	84.8 m.	+ 27.7%
Rural Transit Ass'nce (RTAP)	6.0 m.	+ 20.0%
	$1,755.0 m.	+ 4.8%

* Includes either supplemental funding from State Initiative Block Grant or special set-asides.

Available under the Sec.3 capital assistance and related programs would be $1,150 million. NASTA's recommendations assume the following distribution:

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[1] Should funding of this flexible new source of assistance not be implemented at this time, NASTA urges continued use of the set-aside mechanism in the allocation of formula funds -- specifically $15 million for Sec. 9(a) and $35 million for Sec. 18.

	Prop'd FY 1990	Change from FY'89
Discretionary Capital Assistance	$1,035.0 m.	+ 5.1%
Sec. 8 Planning	45.0 m.	NC
Sec. 16(b)(2) E & H Assistance	55.0 m.	+ 57.1%
Supplement for Research/Training and Human Resource	10.0 m.	NA
University Research Centers	5.0 m.	NC
	$1,150.0 m.	+ 7.5%

This NASTA proposal is, we believe, realistic both in fiscal and in political terms. It would meet some of the most pressing needs of community transportation and thereby move in the direction of a more appropriate distribution of federal support without doing so at the expense of any other transit programs.

We urge adoption of these recommendations as a part of this committee's continued strong and steady support of public transportation for all Americans.

STATE-BY-STATE IMPACT OF NASTA PROPOSAL
UMTA FORMULA FUNDING AND SEC. 16(b)(2)

(In Millions of Dollars)

State	Total FY'89 Funding	Total NASTA FY'90 Funding	Percent Change	State	Total FY'89 Funding	Total NASTA FY'90 Funding	Percent Change
Alabama	$10.9	$12.4	14.2%	Montana	$2.0	$2.4	20.4%
Alaska	$1.2	$1.4	20.9%	Nebraska	$5.7	$6.4	11.6%
Arizona	$12.9	$13.7	6.5%	Nevada	$3.9	$4.3	8.7%
Arkansas	$4.9	$5.8	19.0%	New Hampshire	$2.4	$2.9	19.3%
California	$229.9	$239.7	4.3%	New Jersey	$145.9	$151.0	3.5%
Colorado	$17.3	$18.4	6.3%	New Mexico	$1.5	$1.9	28.8%
Connecticut	$25.1	$26.7	6.5%	New York	$302.2	$313.4	3.7%
Delaware	$2.6	$2.8	8.9%	North Carolina	$14.4	$16.8	16.3%
Dist. Columbia	$11.4	$11.9	3.8%	North Dakota	$1.7	$2.1	20.8%
Florida	$56.1	$59.8	6.6%	Ohio	$57.4	$61.1	6.5%
Georgia	$28.4	$30.5	7.6%	Oklahoma	$7.9	$8.9	12.8%
Hawaii	$13.8	$14.4	4.5%	Oregon	$13.3	$14.4	8.4%
Idaho	$2.0	$2.4	22.9%	Pennsylvania	$97.1	$102.5	5.5%
Illinois	$134.5	$140.5	4.4%	Rhode Island	$10.0	$10.4	5.0%
Indiana	$26.1	$28.3	8.3%	South Carolina	$8.0	$9.1	13.3%
Iowa	$7.8	$9.0	15.5%	South Dakota	$1.5	$1.8	24.2%
Kansas	$6.5	$7.4	13.5%	Tennessee	$15.1	$16.6	10.4%
Kentucky	$11.9	$13.3	11.9%	Texas	$73.3	$78.5	7.2%
Louisiana	$18.7	$20.2	8.4%	Utah	$8.9	$9.5	6.3%
Maine	$2.2	$2.7	25.0%	Vermont	$1.0	$1.2	28.0%
Maryland	$41.5	$43.3	4.4%	Virginia	$33.1	$35.2	6.4%
Massachusetts	$61.6	$64.5	4.7%	Washington	$37.1	$39.0	5.2%
Michigan	$41.5	$44.5	7.2%	West Virginia	$4.2	$5.1	21.2%
Minnesota	$20.1	$21.6	7.6%	Wisconsin	$22.8	$24.9	8.9%
Mississippi	$4.8	$5.8	20.6%	Wyoming	$1.2	$1.5	21.5%
Missouri	$19.2	$20.9	8.9%				
				TOTAL U. S.	$1,684.2	$1,782.83	5.9%

NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION FUNDING

ATLANTIC EMERGENCY MEDICAL SERVICES COUNCIL

STATEMENT OF HARRY TETER, JR., EXECUTIVE DIRECTOR

For the past nine years I, on behalf of the Atlantic Emergency Medical Services Council, have been appearing before the Committee and you to request funding for the programs of the National Highway Traffic Safety Administration. The specific programs we always address are those concerned with Emergency Medical Services. Every year the demand for federal dollars for all programs grows heavier for a variety of reasons. These programs are more expensive to operate. New demands arise. We are writing to you again requesting continuation of these valuable NHTSA programs because needs in this area continue and these programs are vital to address them.

Much has been done over the past nine years and credit in large part goes to Congress and you, Mr. Chairman. An excellent study and a report was made on Injury In America. It became the basis for a new Injury Control Program at the Centers for Disease Control. You funded this program initially--now it is being funded by the Health Human Services Department. It is the first major new initiative in trauma by the Federal government since 1973. It will provide valuable information on prevention and treatment of trauma.

The CDC program is welcomed and needed but so too are the on-going programs of NHTSA. These provide the federal leadership for pre-hospital EMS services. They set the standards for EMTs and paramedics, whose services are critical to saving lives. NHTSA looks at all transportation needs, from safe ambulances to the need for ambulance licensure to the way in which ambulances must be driven. In addition it evaluates programs and gives much needed technical assistance to areas not sufficiently covered by EMS systems.

The Atlantic Council is presently undertaking a two-year EMS systems registry with DOT. The seven member states are going to link data from ambulance, police, hospital and coroner reports to evaluate EMS delivery in the Atlantic region. We hope to assess and compare delivery of services in rural and urban areas. This will be the first multi-state regional system registry and we expect information valuable to our states and to Congress on EMS delivery.

Council members work in their states with the Governors' Highway Safety Representatives to see that many pre-hospital EMS needs are met. The dollars provided through the 402 program are critically needed for these life-saving projects.

NHTSA has established a fine record in EMS and this will hopefully continue. Presently the Congress is considering new legislation that will create a trauma system program at the Department of Health Human Services. It will greatly help the trauma cause and all of us in EMS strongly urge its passage. The prospective effectiveness of this legislation would be enhanced if NHTSA would use its dollars to begin some of the programs proposed in that legislation. Demonstration projects could be established in various areas of the country.

From a prevention point of view, we also support NHTSA's program on alcohol and drugs, and speed enforcement.

I want to take this occasion to express the Council's gratitude for the excellent services of Diane Steed, NHTSA's

outgoing Administrator. She has zealously pursued programs for EMS. It has been a high priority for her and we thank her. I have recently had the pleasure of meeting with her designated successor, General Jerry Curry. He is enthusiastic about NHTSA and EMS and I know will provide leadership for better trauma care. All of us in EMS are very grateful for the superb work of George Reagle, the Associate Administrator for Traffic Safety Programs at NHTSA. George works tirelessly and is invaluable to us.

In the coming year we have many challenges before us that require strong federal EMS leadership--specifically the leadership provided by this Committee, you, Mr. Chairman, the Congress and DOT/NHTSA. There is still too much trauma coming from our highways. Only strong prevention initiatives and good EMS systems available nationwide will change this. We must make people more aware of what trauma is and what we can all do to reduce it. Thanks to your sponsorship, Mr. Chairman, the House will hopefully pass H.J. Resolution 120 which designates May 1989 as National Trauma Awareness Month. This commemorative bill means much to the EMS and trauma community. It indicates the Congress cares about this cause. It captures the public attention, and we appreciate your efforts in this so much.

Other issues must be tackled. Transportation of hazardous materials must be improved. We must find better ways to alert the EMS system that an accident has occurred so the system can begin the rescue operation. I understand that in Australia automobiles are equipped with a device that on impact sends a signal that can be picked up by an EMS squad. This certainly warrants additional investigation. The greatest challenge we have in EMS is to overcome time. Dr. Cowley in Baltimore has established the Golden Hour. If we can get a victim and have him in a proper care facility within one hour his chances of survival increase dramatically. The biggest gap of time is from when the accident occurs to when the ambulance arrives at the scene. Perhaps the Australian technique will shorten this time.

There is much we need to learn through research. But we must <u>not</u> duplicate research. Ways must be found to better catalog what research has been done by DOT--and all federal agencies dealing in EMS. We tend to fund research and the only person that ever sees it is the federal person assigned to the project. He reviews it and puts it on a shelf to gather dust. Lessons learned from research must be better disseminated.

I thank you, Mr. Chairman, for your devotion and dedication to the cause of eradicating injury on the highways. You and your fellows members of Congress provide the much-needed dollars to work to this goal. We will never completely eliminate trauma but we can reduce it dramatically. We can only do this with the help of NHTSA funds and the determination provided by strong leaders. We appreciate what you have done in the past and ask you to continue your work in this vital area of public health and safety.

STATEMENT OF THE NATIONAL ASSOCIATION OF GOVERNORS' HIGHWAY SAFETY REPRESENTATIVES

The National Association of Governors' Highway Safety Representatives (NAGHSR) is pleased to comment on the Department of Transportation appropriations for FY 90. NAGHSR is a non-profit association representing the highway safety programs of 49 states, 4 territories and the District of Columbia. The members are appointed by the Governors of each state and are responsible for managing the highway safety program of each state. The Association is concerned about all aspects of highway safety including impaired driving, occupant protection, speed enforcement, truck safety and other safety issues.

Highway Safety: A Persistent Problem

Currently, the United States enjoys the best highway safety record, in terms of fatalities per mile driven, of any country in the world. Over a twenty-year period from 1966-1987, the mileage death rate in this country dropped from 5.5 deaths to 2.4 deaths per 100 million miles of travel (which is the lowest mileage death rate to date). In the last eight years alone, the death rate from motor vehicle crashes has been cut by more than 25%.

Despite the positive impact federal assistance and state and local highway safety programs have had on highway safety, motor vehicle deaths and injuries continue to be a major problem. 46,200 people were killed in motor vehicle crashes in 1987--the last year for which statistics were available--and 3.5 million people were injured. Half of the fatalities were alcohol-related, 6,700 were pedestrian fatalities, 4,800 fatalities involved heavy vehicles, and 4,000 were cyclist fatalities.

About half of all the unintentional injury deaths are caused by motor vehicle crashes. The leading cause of death for Americans aged 5-34 is motor vehicle crashes. For all ages, the motor vehicle injury death rate is surpassed only by the rates for heart disease, cancer and stroke. According the National Highway Traffic Safety Administration (NHTSA), the estimated economic cost of motor vehicle-related fatalities and injuries to society was $75 billion in 1987 alone.

If traffic continues to grow at about 4% per year in the future, as the Highway Users Federation projects, and if the current mileage death rate of 2.4 deaths per 100 million miles of travel is maintained, then annual fatalities may exceed 80,000 by the year 2000. The rate would have to be dropped to 1.4 deaths per 100 million miles of travel just to maintain a fatality frequency of 46,000 fatalities a year -- a level which, in itself, represents a totally unacceptable loss of human life. Clearly, more federal, state, and local and private sector resources will have to be devoted to highway safety to address this problem.

Current Federal Assistance Programs for Highway Safety

Much of the progress that has been made in highway safety can be attributed to federal highway safety legislation of the past twenty years (such as the Highway Safety Act of 1966) and the federal grant funds authorized by that legislation. The federal State and Community Highway Safety grant program (23 U.S.C. 402, commonly known as the 402 program) is the major source of funding for state highway safety programs.

Two major features make this federal grant program unique and contribute to its effectiveness. First, unlike other federal grant programs, the 402 program operates as federal "seed money"

for state and local highway safety programs. 402 grants are available over a three-year period, with a declining federal match of 75%, 50%, and 25%. Highway safety programs funded with 402 funds are expected to be self-sufficient by the end of the third year; therefore, the 402 program does not encourage state dependency on federal grant assistance:

- In South Carolina, the Department of Health and Environment Control operated the state's pedestrian program with 402 funds. The Department plans to continue the pedestrian safety program, which has received a national award from the National Safety Council and is a model program for other states, even after its 402 grant is exhausted.

- In Kentucky, 402 funds were used from 1982-85 to create a Traffic Alcohol Patrol whose purpose was to increase DUI arrests in the Lexington area. The program, which resulted in a 300% increase in DUI arrests and a 35.8% reduction in alcohol-related accidents during Patrol hours, is still operating in the area despite the fact that no federal funds are involved.

- In Ohio, $4 of each motorcycle registration fee is used to fund a motorcycle safety training and education program. The program, which is supported by over $1 million in state funds, was initially funded by a 402 grant.

Second, states use 402 funds to leverage other state and local funds, private sector contributions, or voluntary assistance. In some cases, the leveraged funds (or in-kind assistance) are equal to or exceed the federal grant:

- In Arizona, $75,242 in 402 funds were matched with $215,659 of City of Mesa funds to create a local five-agency DWI task force. The task force substantially increased DUI apprehensions during the Christmas holiday season over a three-year period, and now Arizona is replicating the multi-state task forces elsewhere in the state.

- In Illinois, the state passed-through a $68,318 grant to the Winnebago County American Red Cross to coordinate the county's comprehensive community occupant protection program. The local match was provided in the form of over 1,200 volunteer hours. The project was estimated to increase belt usage in the county by over 24%.

- In Iowa, almost $1.8 million of radio, TV and newspaper advertising was donated to the state's alcohol and occupant protection programs in FY 87 and 88. About $200,000 in 402 funds were used to develop the programs. In a separate project, the Iowa Methodist Medical Center contributed $7,000 of its own funds on a $21,000 402 project whose purpose was to assess the impact of the state's occupant protection program. The project resulted in a substantial improvement in the accident data bases of hospitals throughout the state.

Federal 402 funds may be used to fund a wide range of projects including: occupant protection, impaired driving, police traffic services, motorcycle safety, roadway safety, traffic records, and emergency medical services. States may fund other types of highway safety projects, such as pedestrian and bicycle safety, if they submit additional justification and explanation to NHTSA.

Additional federal assistance is provided to states under the Federal Highway Administration (FHWA) 402 program for highway-related safety projects, under the 403 program (23 U.S.C.403) for highway safety-related research and demonstration programs (which is a discretionary assistance program available to states, localities, universities, non-profit associations, etc.), and under the 408 program (23 U.S.C. 408) for state alcohol enforcement incentive grants. A small number of states receive truck safety assistance through the Motor Carrier Safety Assistance Program (MCSAP), the Rail Highway Grade Crossing program, and the Hazard Elimination program-- all of which are administered by FHWA. A small number of states receive funds for drugged and drunk driving prevention programs under federal drug legislation.

Recommended 402 Funding

Under the Surface Transportation and Uniform Relocation Assistance Act (STURAA) of 1987, funding for the 402 State and Community Highway Safety grant program was authorized at $126 million a year between FY 87 and FY 91. However, the program was funded at $110 million in FY 87 and 88 and $113 million in FY 89. The Administration has requested $115 million for FY 90. (The funding level has increased slightly over the last four years because the takedown for the implementation of the 402 program has declined during that same time period.)

This reduction in 402 funding below authorized levels has occurred at a time when highway safety needs have rapidly increased and when state governments have been pressured to take responsibility for more and more highway safety matters. If this country is to sustain the past achievements in highway safety and to progress against the rising tide of motor vehicle deaths and injuries, then the 402 program must be funded at increased levels in FY 90. NAGHSR urges this Committee to consider funding the 402 program at the authorized level of $126 million in FY 90.

Speed Enforcement

To date, 40 states have posted rural segments of their Interstate highway system at 65 mph. Eight states have instituted differential speeds for cars and trucks on the Interstate system. Sixteen states have raised the speed limit to 65 mph on certain portions of non-Interstate highways. In states that have made the change to 65 mph, speed enforcement will be considerably more difficult but also more essential if control over the speed limit is to be maintained. Improved enforcement will also help reverse the 19% fatality increase over previous years which NHTSA noted in its January report to Congress on the safety impact of higher speeds.

$20 million in 402 funds are earmarked for the enforcement of the speed limit on the Interstate system. This will help defray some of the costs of implementing the speed limit provisions of the STURAA of 1987. It will not, however, help the states enforce the speed limit on all other roads where speed is just as difficult and pervasive a problem.

NAGHSR recommends that the $20 million earmarked for speed enforcement should be increased and that the funds should be made available for speed enforcement on all roads, not just Interstate roads. Additionally, increased 403 monies are needed to continue the evaluation of the safety impact of increased speed limits and to fund research on the spillover effect of higher speeds on non-Interstate roads. Added 403 funds are also needed to evaluate the impact of speed-related public information and education materials and to evaluate the effectiveness of speed enforcement

programs. Increased appropriations for these purposes will begin to give the issue of speed, which is one of the major causes of motor vehicle crashes, the proper emphasis it deserves within NHTSA and state highway safety offices.

Occupant Protection

Considerable progress has been made in occupant protection within a short time period, due in no small part to the auto and insurance industries which helped to get strong occupant protection laws passed in many states and to other groups which gathered support for a national occupant protection goal of 70% safety belt usage nationally by 1990. Thirty-three states and the District of Columbia have mandatory occupant protection laws, and all fifty states have mandatory child safety seat laws. Safety belt usage has continued to climb in the last few years, and two states are experiencing safety belt usage in excess of 70%.

However, according to a recent 19-city NHTSA study, only 47% of motor vehicle occupants overall used occupant protection systems in 1988. As airbags are phased into the new car fleet over the next fifteen years, the public, misunderstanding the need for both airbags and safety belts, may use their safety belt systems less and less.

A substantial amount of work still needs to be done in occupant protection. Additional 402 and 403, state and local and private sector funds are needed to educate the public about combined air bag and safety belt usage and to give greater encouragement to the law enforcement community to use safety belts. 402 and 403 funds are needed to focus on high risk population groups such as the young and the elderly and hard-to-reach populations such as low income persons and rural residents. Additional federal funds are needed to encourage the correct usage of child safety seats and the development of occupant protection systems for children who are too old to use child safety seats. 402 and 403 funds are also needed to enable implementation of combined enforcement and public education projects similar to the one which was very effectively implemented in Elmira, New York a few years ago. NAGHSR recommends that 402 and 403 funds be increased for these purposes.

Drunk and Drugged Driving

Impaired driving is another highway safety area where significant strides have been made but additional work needs to be done. According to the 1986 Fatal Accident Reporting System, alcohol use by drivers has decreased steadily over the past five years. Teenaged drivers -- a group very prone to alcohol involvement in fatal crashes -- showed a substantial decrease in the proportion intoxicated between 1982 and 1986 compared to any other age group.

Nonetheless, nearly half of all motor vehicle fatalities in 1986 were alcohol-related. Further, the proportion of alcohol-related fatalities in 1986 increased 7% over 1985 levels, perhaps the beginning of an upward trend in alcohol-related fatalities. Public interest in the issue also seems to have leveled off, as evidenced in the decline of media coverage of drunk driving. Many in the highway safety community, including NAGHSR, believe that the drunk driving movement has reached a plateau in this country.

Although there are no firm numbers on the extent of the drugged driving problem, NHTSA estimates that 15-20% of drivers use both legal and illegal drugs. The proportion of drugged truck drivers

is probably much higher -- perhaps as high as 50%. Although alcohol continues to be the drug of choice and one of the major causes of vehicle crashes, evidence is beginning to emerge that drugs are a contributing factor in many vehicle crashes as well.

More 402 and 403 funds, as well as state, local and private sector funds, are needed to reinvigorate the public's interest in drunk and drugged driving. Funds are needed for special programs targeted to high risk groups, such as the young and low income driver, and for projects with grassroots organizations (such as the Mothers Against Drunk Driving) which so effectively brought drunk driving to the public's attention a decade ago.

Additional federal monies (matched with private sector contributions) are needed to fund local TEAM (Techniques for Effective Alcohol Management) coalitions. TEAM -- which is a national coalition of insurance companies, automobile manufacturers, national sports organizations, federal and state governments and others -- was organized to educate sports fans and others about the dangers of drinking and driving and to implement responsible serving policies in sports arenas. The success of TEAM has been due, in part, to the local coalitions which pass the TEAM message on at the local level. A number of cities have expressed strong interest in forming their own TEAM coalitions, but funding limitations have precluded some cities from moving forward with their plans. Adequate 402 and 403 support are critical if the momentum from the TEAM program is to be maintained.

More 403 funds are also needed to determine the extent of the drugged driving problem in the country, to help the states develop effective legislation specifically aimed at the drugged driver, and to develop public education and information programs for the drugged driver. NHTSA and FHWA need to work together assessing the problem of drugged truck drivers and developing specific programs addressing that subgroup of the driving population.

Pedestrian and Motorcycle Safety

Pedestrian safety is an area which has received relatively little public attention, yet pedestrian fatalities represented 14.7% of all motor vehicle fatalities in 1986. Males, elderly persons, and urban pedestrians tend to be over-represented in the fatality statistics.

NAGHSR recommends that pedestrian safety should be made a 402 highway safety priority and that increased 402 funds be made available for the implementation of pedestrian safety projects at the state and local level. Additional 403 funds are also needed to develop effective pedestrian safety programs (which supplement the National Safety Council's Walk Alert program), to help localities integrate pedestrian safety projects with community traffic safety programs, and to develop special programs targeted to high risk populations such as the elderly.

More than 4,000 persons were killed and two million injured in motorcycle crashes in 1986. 24 states require the use of motorcycle helmets for drivers under a specified age (usually 18); 21 states, the District of Columbia and Puerto Rico require motorcycle helmets for drivers of all ages; and 5 states do not require the use of motorcycle helmets at all. Despite the fact that there is clear evidence linking the use of motorcycle helmets to injury reductions, several states are considering repealing their motorcycle helmet laws this year.

Although NHTSA made motorcycle safety a 402 highway safety priority last year, the Agency has not requested increased appropriations for implementing motorcycle safety programs at the state and local levels. Added 402 and 403 funds are needed to help states adopt motorcycle helmet use laws (and to counter efforts to repeal those laws), to create and disseminate motorcycle helmet public education programs, to develop and implement improved motorcycle driver training programs, and to develop motorcycle alcohol and drug use prevention programs.

Police Traffic Services

Since the demise of the General Revenue Sharing program and the tightening of labor regulations under the Fair Labor Standards Act, state and local law enforcement agencies have had to more with considerably less. Furthermore, with the rapid proliferation of federal and state traffic laws in recent years, state and local law enforcement agencies have had to be knowledgeable about and enforce a much wider variety of laws.

Enforcement of highway safety laws and regulations is critical to the success of highway safety programs, particularly occupant protection, drunk driving and speed programs. State and local police need adequate funding to support strong enforcement activities. If we expect highway safety laws to be obeyed, the public needs to know that the laws are going to be enforced. This delicate balance is easily upset when resources are strained and demands increased.

Yet funding for police traffic services has not kept pace with need. More 402 and 403 resources are urgently needed to support and strengthen enforcement of federal, state and local highway safety laws.

Emergency Medical Services

Much of the focus of the federal and state highway safety programs has been on the prevention of motor vehicle crashes. Yet, reductions in fatalities can be achieved by proper treatment of those injured in motor vehicle crashes. According to NHTSA, 20% of all traumatic deaths (including motor vehicle-related fatalities) in 1988 could have been prevented if the patients had been given an optimum prehospital response and treated at an appropriate trauma care facility. However, in 1988, only two states had acceptable statewide trauma care systems, 19 had partial systems, and 29 had no systems at all.

More 402 and 403 funds are needed to help states develop and improve their trauma care systems and to better integrate their highway safety accident prevention and treatment programs.

Traffic Records

Good data is the foundation of every federal, state and local highway safety program. Without adequate motor vehicle fatality and injury data, states and localities cannot identify highway safety problems within their jurisdictions, determine what types of highway safety programs are most needed, and evaluate the effectiveness of programs they have put in place. Without adequate data, federal, state and local highway safety offices cannot do their job.

Yet an examination of state accident record data reveals a wide inconsistency in the amount and quality of data collected by the states. State safety belt usage survey data also shows disparities in the manner in which such data is collected and the quality of the data. NHTSA and the states have been working

together over a number of years to improve data reporting an analysis systems but progress has been slow.

An infusion of 402 funds for traffic records would help speed up improvements in state data collection and analysis and help refocus state attention on the need to improve the data components of their programs. Additional 403 funds would help NHTSA develop uniform guidelines for data collection (particularly for safety belt usage surveys) which would make the data more consistent from state to state. Added 403 funds would also help the Agency evaluate the numerous data bases that are available, recommend to the states those that are most effective, and develop programs for linking data bases (as is being done under the EMS Sensitivity Index project which is funded by NHTSA and administered by NAGHSR).

Recommended 408 and 410 Funding

The 408 alcohol incentive grant program was authorized under the Surface Transportation Assistance Act of 1982 and amended by the STURAA of 1987. Congress authorized $125 million for the program and that amount remains available until obligated by the states. Last year, NHTSA issued a rulemaking which loosened some of the regulatory barriers to state qualification to the 408 program. To date, twenty-two states qualify for 408 incentive grants (five since the change in the 408 regulations).

The Administration is requesting $13.5 million for the 408 program for FY 90, $2.5 million higher than the estimated FY 89 spending level. The increased funding reflects the larger number of states which now qualify for the incentive grant program. If additional states qualify for 408 grants in the future, as NHTSA projects they will, then additional funding may be necessary. We strongly urge the Appropriations Committee to fund the 408 program at the $13.5 million level requested by NHTSA at a minimum.

As part of the Omnibus Drug Initiative Act of 1988, Congress passed the Drunk Driving Prevention Act of 1988 (23 U.S.C. 410, also known as the 410 program). The 410 program provides alcohol incentive grants to states which adopt administrative license suspension programs and provide for a self-sustaining drunk driving program. A state may be eligible for up to four supplementary grants if it satisfies certain additional eligibility criteria. The program was authorized at $25 million in FY 89 and $50 million for each of the following two years.

The Administration has requested no funds for FY 90 for this program. NHTSA will not address the 410 funding issue until the Agency has completed the 410 rulemaking process. The Agency is not required to issue a final regulation implementing the 410 program until November, 1989. As a result of this strategy, eligible states may not receive 410 funding until two or more years after program authorization.

We believe that the failure to fund this important highway safety program will cause more damage than if the program were never authorized in the first place. Congress believes it has positively addressed the drunk driving problem in the country when, in fact, there is no money to operate the 410 program. The states' expectations have been raised, but there are no funds to help them move forward with their drunk driving program plans. NAGHSR and others in highway safety believe that the Agency could expedite its rulemaking process and issue final rules prior to the start of the next fiscal year. We strongly urge that $7-10 million should be made available for states that may be eligible for 410 incentive grants.

Funding for FHWA 402 Program

The FHWA 402 program is available to states for non-construction highway safety projects. Funds may be used for accident analysis, traffic control device inventories, work zone safety, safety training, and some highway safety-related research.

NAGHSR believes that the FHWA 402 program has been authorized a too low a level, given the importance of traffic management and safety research and analysis to highway safety in general. As the population ages, traffic management-related activities will become even more important. (Twelve percent of the population in 1988 was 65 or older. By 2020, 17% will be 65 or older.) More FHWA 402 funds will be needed to improve: roadway markings, sign visibility and maintenance, pedestrian signalization, and traffic operations. Next year, we intend to ask the Congressional authorizing committees to authorize this program at considerably higher levels.

The Administration has requested $10 million for the FHWA 402 program for FY 90, $600,000 above last year's funding level. NAGHSR strongly supports this funding request.

Speed Limit Demonstration Program

The STURAA of 1987 allowed up to twenty states to post certain segments of non-Interstate roads at 65 mph as long as those segments satisfied certain criteria which were specified in the legislation. The FY 88 appropriations legislation for the Department of Transportation directed the Secretary of Transportation, in conjunction with NAGHSR, to report to Congress by October 1, 1988 on the effect of the 65 mph non-Interstate demonstration program. Last year, in compliance with this requirement, NAGHSR formed a task force on the 65 mph demonstration program and has since been working with NHTSA on this issue.

Initially, NAGHSR requested 1984-88 data from the 16 states who are participating in the demonstration program. However, we quickly found that 1988 data is not available in most states until 1989. Consequently, we revised our request and only asked for back-year data on the affected road segments. A request to the states for their 1988 data will go out within the next week. NHTSA will analyze the data, with NAGHSR's input, and we plan to submit a joint report by October 1, 1989. (NHTSA sent a letter informing the House and Senate Appropriations Committees of this development last year.)

Emergency Management Services

Last year, NAGHSR completed the first phase of a project to develop an index with which to evaluate the effectiveness of emergency management systems in meeting highway safety objectives. Such an index will enable states to track progress in individual states, make comparisons among states, and evaluate, on a nationwide basis, the percent of injury cases that receive prompt, adequate EMS responses.

In the first phase of the project, the EMS sensitivity index was developed. In the Congressional report accompanying DOT's FY 88 appropriations, Congress directed that $240,000 of 403 funds be used to expand the EMS project effort. Congress specified that additional states, including New Jersey, be included in a multi-state demonstration project.

Due to NHTSA contracting regulations, the New Jersey portion of the project had to be split off and the project grant reworked.

NAGHSR subsequently received $150,000 in 403 funds to support the second phase of the EMS sensitivity index project. NAGHSR has subcontracted with Maine and Missouri and will give a grant to Pennsylvania for the purpose of carrying out the multi-state demonstration. Both Maine and Missouri have initiated work on the project. Phase two is to be completed within eighteen months. NAGHSR plans to report to this Committee on the project's progress and outcome.

Summary

In summary, NAGHSR believes that the 402, 403, and 408 programs have positively improved highway safety in this country and that the 410 program will do so in the future. We feel, however, that the 402 program, in particular, has been consistently underfunded, given rapidly increasing highway safety needs and demands. We urge this Committee to fund the 402 and 403 programs at higher levels, to fund the 408 program at least at the level requested by the Administration, to fund the FHWA program at the Administration's requested levels, and to provide a small level of funding for the newly authorized 410 program.

The National Association of Governors' Highway Safety Representatives appreciates this opportunity to submit its views and comments on the FY 90 appropriations for the U.S. Department of Transportation. We look forward to working with Committee members and staff to ensure that highway safety programs continue to be adequately funded.

FEDERAL HIGHWAY ADMINISTRATION FUNDING

STATEMENT OF THE ASSOCIATED GENERAL CONTRACTORS OF AMERICA

The Associated General Contractors of America (AGC) represents more than 32,500 firms, including 8,000 of America's leading general contracting construction firms. These contractors perform more than 80 percent of America's contract construction of commercial buildings, highways, industrial, and municipal-utility facilities, and are responsible for the employment of more than 3,400,000 individuals.

Trends in Infrastructure Spending

Of foremost concern to AGC is the state of the nation's infrastructure and the inability of the federal government to allocate sufficient resources to fully fund the promises made in the various authorization bills for infrastructure programs.

Within the jurisdiction of your Committee, there are three critical capital investment programs for which obligation ceilings are established each year. These programs, - the federal-aid highway, airport improvement, and mass transit capital grants programs - are financed through self-supporting trust funds which do not contribute to the deficit. AGC urges that the federal government begin to address the very real needs in transportation by fully funding these programs.

AGC applauds the actions of your Committee last year when it rejected the Administration's proposal to drastically cut transportation capital spending. We urge your continued commitment to these programs as you consider the 1990 Appropriation levels for the highway, airport and mass transit programs.

With respect to the specific programs, AGC offers the following:

Federal-aid Highway Program

Of particular concern to AGC is the 1990 funding levels for the federal-aid highway program. The Reagan FY 1990 budget recommended an obligation ceiling of $11.310 billion, over $1 billion less than authorized in the 1987 Surface Transportation and Uniform Relocation Assistance Act. AGC maintains that this level is totally inadequate to meet highway transportation needs. Since 1985 the downward trend in highway spending is having an effect on the condition of the nation's highways and bridges. The recently completed study by the American Association of State Highway and Transportation Officials entitled "The Bottom Line - A Summary of Surface Transportation Investment Requirement 1988-2020" shows that we face a monumental challenge now and in the future to meet highway transportation needs. AASHTO's report identifies an annual range of $38 to $58.5 billion in capital needs between now and the year 2020. This compares with 1985 spending of $27.3 billion. Clearly we need to be spending more at all levels of government on highway transportation, and the federal government should be taking a leadership role. A first step in addressing these needs would be to substantially increase the obligation ceiling on the highway program.

Since the Highway Trust Fund has a deficit proof mechanism, the Byrd Amendment, which assures its solvency, AGC recommends that the highway spending level be set at the level the trust fund can support. AGC understands the Highway Trust Fund can currently support a program level of nearly $17.0 billion annually between now and 1991; this would provide a nearly 33 percent increase over current spending. At that level the nation could begin to adequately address the backlog of highway needs.

Airport Improvement Program

AGC also believes that the levels proposed in the Reagan FY 1990 Budget for the airport improvement program fail to address the near-crisis capacity problem we face with the nation's airport system. It is difficult to reconcile the facts that while air travel, and accompanying airport use are growing at a frantic pace, funding for those airports is being curtailed.

It is worth noting that the FY 1990 request of $1.35 billion is $350 million less than is authorized in the 1987 airport and airway reauthorization bill. It is also worth noting that the airport trust fund currently has an uncommitted balance in excess of $6 billion, which AGC recommends should be drawn down immediately to address the nation's aviation capacity crisis.

Mass Transit Capital Grants Program

Of additional concern to AGC is the FY 1990 proposed spending for the mass transit program. As in 1989, the proposal contemplates funding the mass transit program entirely from the 1 cent gasoline tax dedicated to the Mass Transit Account of the Highway Trust Fund. This proposal would significantly reduce necessary capital investment in mass transit across the country by forcing localities to use the Mass Transit Account for operating assistance. AGC believes that the one-cent gasoline tax that finances the Mass Transit Account of the Highway Trust Fund should continue to be used exclusively for capital grants, not as a block grant that could be used for operating subsidies.

Removal of the Transportation Trust Funds from the Unified Budget

AGC believes that to keep faith with the users of this nation's highway and aviation systems who pay the "user-fees" to support the highway and airport programs, the Highway Trust Fund and Aviation Trust Fund should be removed from the unified budget and exempted from the Gramm-Rudman-Hollings law.

Trust fund receipts can be used for no other purpose than transportation improvements. Moreover, the Highway Trust Fund has the Byrd Amendment, which assures solvency. Budget constraints and low obligation ceilings have permitted the balances in the trust funds to be used to mask a larger general fund deficit. In reality, the balances are being "loaned" to other general fund programs, all in direct conflict with the spirit of the "user fee" concept.

Economic Effects of Transportation Capital Investment

The economic development that has taken place in this country for the past quarter century has been substantial. What drove that growth? What caused our society to reap vast rewards in quality of life? Over the past 30 years the gross national product of this country has grown over 1,000 percent, nearly double the increase of the previous 30-year period in our history. Several factors account for this growth. One factor, highway development, stands out above all others. America has grown and prospered from the mobility provided by the nation's highway transportation system, in general, and specifically the Interstate Highway System, which was started in 1956. A look at the role of our highway system in our economy will show the magnitude of its effect on current and future economic development.

- 89.5 percent of all personal travel is on highways;
- 82 percent of all freight revenues are carried on highways; nearly every product manufactured or consumed in this country is, for a portion of its journey from production to market carried by truck; and
- 85 percent of America's workers commute to work by private vehicle.

Clearly, highways play a vital role in our economy. No commercial, industrial, retail, or residential development would have been built in a location that did not provide for an adequate highway system to support it.

As development patterns have changed, highways have played an even more important role in this country. Development over the past 20 years has shifted substantially to suburban growth centers. Suburban employment currently accounts for 60 percent of metropolitan jobs, 47 percent of all job destinations, and 67 percent of all job growth in this country. America is increasingly working in commercial buildings, industrial complexes, and shopping centers in suburban areas. None of these suburban developments would have been possible without an adequate highway transportation system serving them.

Increasingly, communities around this country are recognizing the critical link between highways and economic development. Recently, Phoenix voted a $1.5 billion road development program designed to support the area's rapid economic development. A critical factor in the tremendous building boom in the suburban Washington, D.C., area of Fairfax County, Va., has been access to highway transportation. This same link between highways and building is being played out in growth areas across the country.

Unfortunately, some tend to take our highway system for granted. Indeed, like other aspects of our nation's infrastructure, some rarely acknowledge the vital role that highways plan in their daily lives, until the highway system breaks down.

There are already signs our highway system is falling apart. Many portions of the Interstate system are in need of repair and reconstruction; over 50 percent of the nation's bridges are structurally deficient or obsolete; and congestion on urban freeways in increasing at an alarming rate.

AGC believes that this nation is seriously underinvesting in its surface transportation infrastructure, at a great cost to the nation in lost productivity, jobs, and international competitiveness. The nation's transportation system is the arterial system by which the country's economic development is nurtured and supported. If the people of this country, both public officials and private citizens alike, continue to ignore the construction and rehabilitation of this nation's highway and other surface transportation systems, our nation will pay many times over in lost economic opportunity now and in the future.

A major recommendation contained in the final report of the National Council on Public Works Improvement is a call for a national commitment, shared by all levels of government and the private sector, to increase capital spending for infrastructure by as much as 100 percent above current levels. In as much as transportation is a major component of the nation's infrastructure, AGC believes that the council's findings lend strong support to our advocacy of increased funding for the nation's transportation programs. Certainly, the United States of America deserves a national highway system that rates better than C, the rating that the National Council gave to our highway system in its final report.

In closing, AGC believes increased investment in our transportation infrastructure is critical to the continuing strength of this country's economy. AGC urges the Appropriations Committee to set as a high priority, a continued commitment to capital investment in the nation's transportation system. AGC respectfully suggests that the Administration's highway, airport improvement, and transit budget proposals lack such a commitment and should therefore be rejected in favor of higher and more appropriate levels, as recommended in this statement.

COLORADO DEPARTMENT OF HIGHWAYS

STATEMENT OF DWIGHT M. BOWER, DEPUTY DIRECTOR

SUMMARY OF REQUEST:

The Colorado Department of Highways offers testimony that substantiates the need for priority designation for Fiscal Year 1990 I-4R discretionary set-aside funding of the I 70/I 25 interchange. The Surface Transportation and Uniform Relocation Assistance Act of 1987 (Public Law 100-17, Section 114) included discretionary set-aside funding provisions for high cost, high volume, urbanized, reconstruction projects.

The I 70/I 25 interchange is located in the City and County of Denver, an area that has grown 200% since the interchange was first constructed in 1951. The interchange is severely congested and the most heavily traveled interchange in Colorado, a situation aggravated by the high percentage of trucks utilizing the facility. The interchange was originally designed in the 1940's, constructed in the 1950's, and saw its last major reconstruction project 25 years ago. Much of the interchange was designed before interstate design standards were mandated. The project is estimated to cost $75 million. Once improved, the interchange will meet interstate design standards.

NAME AND TITLE OF WITNESS:

Mr. Dwight M. Bower
Deputy Director
Colorado Department of Highways

ACTION REQUESTED:

The Colorado Department of Highways requests that Congress identify the reconstruction of the I 70/I 25 interchange for priority designation in the allocation of fiscal year 1990 discretionary I-4R set-aside funds.

I am Dwight Bower, Deputy Director of the Colorado Department of Highways. I would like to thank Chairman Lautenberg and the members of this subcommittee for this opportunity to speak.

The Denver area has grown 200% since the construction of the Interchange at the intersection of Interstate 25 & Interstate 70 was built in 1951. The interchange is now severely congested during much of the day, a situation aggravated by the high percentage of trucks utilizing the facility. More than a quarter of a million vehicles travel through the interchange on the average day. By the year 2010, travel is projected to grow to 325,000 vehicles per day. This interchange is known locally as the "Mousetrap".

The State of Colorado and the Colorado Department of Highways are currently working to make this congested crossroad of Colorado operate more safely and efficiently. Hopefully, once improved it will be known as the "Better Mousetrap".

It will be "Better" because of your foresight in including the Interstate 4R Discretionary funding provisions in the Surface Transportation and Uniform Relocation Assistance Act of 1987. We are very appreciative that you acted to meet the needs of busy urban areas like Denver with this valuable funding mechanism.

Colorado applied for and received I-4R discretionary funds in FY 1989 to continue with the reconstruction of this interchange. With the allocation of $17.9 million Interstate 4R Discretionary funds, Colorado was able to fund the construction of the I-70 mainline flyover structures, which will complete the most visible portion of the reconstruction of the interchange.

Colorado has been allocating I-4R formula funds toward the redesign of the interchange and has completed two major reconstruction projects to date with formula funds. Full funding of this request (FY 1990) would complete approximately 80% of the reconstruction of the interchange.

The Better Mousetrap project reconstruction meets all the criteria established in the Act for I-4R discretionary funding. The estimated total cost of the Better Mousetrap project is approximately $75 million, which includes the State matching share.

The reconstruction of this major interchange has national significance. This interchange is the only interstate-to-interstate interchange in Colorado with roadways that traverse Colorado and adjacent states. I-25 is also an important route for transportation of hazardous materials.

Reducing the potential for accidents such as the highly publicized August 1, 1984, torpedo incident is a primary goal of this project. Many ramps function far below the current design standard of 40 miles per hour. During the average year, more than 175 accidents occur at the interchange, accounting for an annualized economic loss of $7.1 million.

Regarding the torpedo incident, six 30-foot-long Mark 48 torpedoes being hauled from the State of Washington to the Submarine Base in Groton, Connecticut spilled onto I-70 when the truck's driver failed to negotiate a 25-mile-per-hour ramp. Not knowing the explosive potential of the torpedoes, nearby residents were evacuated and both interstates were closed for eight hours.

The construction of a Bus/High Occupancy Vehicle (HOV) corridor down the center of I-25 is integral to the timely reconstruction of the I-70/I-25 interchange. The Bus/HOV project is a multi-agency effort of the Urban Mass Transit Administration, the Federal Highway Administration, the Colorado Department of Highways, the Regional Transportation District and the City and County of Denver.

Colorado is requesting your support to secure priority designation for our FY 1990 application of $34 million in I-4R discretionary funds. Connecting the I-70 flyover structures to the roadway system cannot be complete and usable until this requested phase is funded and constructed. The design plans for the projects involved in this request will be ready to be advertised for construction at the time Colorado submits its formal application for FY 1990 I-4R discretionary funding to the Federal Highway Administration.

As mentioned earlier, with the I-4R discretionary funds granted in FY 1989, we will advertise this spring a bid package for the construction of

our cornerstone project, the I-70 flyover mainline structures. Once these structures and the FY 1990 requested phase are opened to the traveling public in mid-1991, I-70 mainline traffic will be allowed to travel through the interchange without mixing with any of the ramp traffic, which is now occurring. This will be the most important element of reconstruction of the interchange since the original construction in 1951.

We are steadfast in our commitment to this project, and we we ask for your continued support, and request your endorsement of priority designation for FY 1990 I-4R discretionary funding.

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